

February 22, 2010

## CURRICULUM VITAE

Name: Stephen James O'Brien

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Date and Place of Birth: September 30, 1944; Rochester, New York

Citizenship: United States

Marital Status: Married, 1968; two children

Education:

1962- Graduated from Good Counsel High School, Wheaton, MD  
1965- Summer School, Georgetown University, Washington, D.C.  
1966- B.S.; St. Francis College, Loretto, PA; major: Biology; minor: Chemistry  
1971- Ph.D.; Cornell University, Major Field: Genetics

Brief Chronology of Employment:

1997 – Date	Sylvio Conte Senior Biomedical Research Service Fellow-NIH
1986 – Date	Chief, Laboratory of Genomic Diversity, National Cancer Institute, NIH, Frederick, MD
1983 – 1985	Acting Chief, Laboratory of Viral Carcinogenesis, National Cancer Institute, NIH, Frederick, MD
1980 - Date	Chief, Section of Genetics, Laboratory of Viral Carcinogenesis, National Cancer Institute, NIH, Frederick, MD
1978 - 1980	Research Geneticist, Laboratory of Viral Carcinogenesis, National Cancer Institute, NIH, Frederick, MD. Chief - G.J. Todaro
1973 - 1978	Staff Fellow, Laboratory of Viral Carcinogenesis, National Cancer Institute, NIH, Bethesda, MD. Research area - cell genetics, oncogenetics, tumor virology and immunology
1972 - 1973	NIH Postdoctoral Fellow, National Cancer Institute, NIH, Bethesda, MD. Supervisor, Charles W. Boone; research area - somatic cell genetics and development
1971 - 1972	Postdoctoral Fellow, genetics-biochemistry, Gerontology Research Center, Baltimore; Supervisor, Bertram Sacktor; research area - genetic control of bioenergetics.

## **Adjunct University Appointments**

1974 - Date	Adjunct Professor of Genetics, George Washington University
1979 - Date	Adjunct Graduate Advisor, Dept. of Biology, American University
1982 - Date	Adjunct Professor, Dept. of Zoology, University of Maryland
1982 - Date	Adjunct Professor, Dept. of Biology, Johns Hopkins University
1982 - Date	Adjunct Graduate Advisor, Dept. of Biology, Hood College
1994 - Date	Adjunct Professor, Dept. of Pathology, Colorado State University
1994 - Date	Adjunct Professor,, Dept. of Biology, George Mason University
1996 - Date	Adjunct Professor, Dept. of Biology, Peking University
2004 -Date	Adjunct Professor, Harvard School of Public Health
1996 - Date	Director, AGA/ Smithsonian NOAHS Center Short Course: Recent Advances in Conservation Genetics, CRC - Front Royal, VA

## **Graduate Students Supervised:**

### M.S. Degrees

M. Catherine Rice

M.S. George Washington University, 1979

Thesis: An examination of the extent of genetic variation in laboratory outbred mice and wild mouse populations.

Cheryl A. Winkler

M.S. University of Maryland, 1981

Thesis: Preliminary characterization of the major histocompatibility complex in *Felis catus*.

Andrea Newman

M.S. Hood College, 1983

Thesis: Estimating the extent of biochemical genetic variation in eight species of the Felidae.

Eric J. Berman

M.S. George Washington University, 1984

Thesis: Assignment of four new genes in the domestic cat by somatic cell hybridization.

Dianne N. Janczewski

M.S. George Mason University, 1989

Thesis: Estimate of genetic distance of orangutan (*Pongo pygmaeus*) subspecies based on isozyme and two-dimensional electrophoresis.

Nuria Vazquez Salat

M.S Hood College 2004

Thesis: Molecular evolution of the CCR cluster in domestic cats and other mammal species

Valerie Beason

M.S. Hood College, 2004

Thesis: Genetic variation, subspecies identification and conservation of the clouded leopard (*Neofelis nebulosa*)

Ph.D. Degrees Completed

Roger H. Reeves

Ph.D. University of Maryland, 1983

Thesis: Characterization of a family of endogenous feline retroviral sequences

Cheryl A. Winkler

Ph.D. University of Maryland, 1986

Thesis: The serological definition of the feline major histocompatibility complex, *FLA*, in the domestic cat, *Felis catus*.

Dennis A. Gilbert

Ph.D. The Johns Hopkins University, 1990

Thesis: Application of DNA fingerprinting to measure the genetic structure of populations.

Dianne N. Janczewski

University of Maryland, 1992

Subject: Phylogenetic radiation of the great cats, *Panthera*, as estimated by DNA sequence analysis of mitochondrial genes.

Sriyanie Miththapala

University of Florida, 1993

Subject: Molecular definition of subspecies differentiation in the Old World leopard, *Panthera pardus*.

Jose Lopez

George Mason University, 1995

Subject: Molecular organization of an historic transposition and amplification of mitochondrial DNA segments to nuclear genes in the Felidae.

Melanie Culver

University of Maryland, 1998

Subject: Molecular genetic variation, population structure and natural history of free ranging pumas, *Puma concolor*.

Olga Uphyrkina

University of Novosibirsk, 2002

Subject: Molecular genetic population structure of the leopard, *Panthera pardus*.

Eduardo Eizirik

University of Maryland, 2002

Subject: Molecular evolution of melanism in the Felidae (Mammalia, Carnivora)

Shu Jin Luo

University of Minnesota, 2006

Subject: Comparative Phylogeography of sympatric wild cats: Implications for biogeography and conservation in Asian biodiversity hotspots

Ann Schmidt-Kuntzel

George Washington University, 2007

Subject: Genetic origins of coat color in *Felis silvestris catus*.

Meredith Brown

Michigan State University, 2007

Subject: Molecular genetic characterization of emerging viral infections and determinants of pathogenicity in free-ranging felid populations

Ph.D. Degrees Pending

Carlos Driscoll

Oxford University

Subject: On the origins of cat domestication in the Wildcat, *Felis silvestris*

Editorial Appointments:

1975-1978	Editor, ISOZYME BULLETIN
1980-Date	Editor, GENETIC MAPS, Cold Spring Harbor Publications
1987-1991	Associate Editor - Chief Subject Editor - comparative gene mapping, GENOMICS, Academic Press.
<b>1987-2007</b>	<b>Chief Editor, Journal of Heredity, American Genetics Association</b>
1990-Date	Associate Editor, MAMMALIAN GENOME
	Associate Editor, MOLECULAR PHYLOGENETICS AND EVOLUTION
1993	Guest Editor, CURRENT BIOLOGY, Molecular Evolution Issue
1994	COSMOS Journal Advisory Board
1995	Guest Editor, CURRENT BIOLOGY, Genomes and Evolution Issue

Boards of Trustees:

American Type Culture Collection  
Cheetah Conservation Fund  
American Genetic Association  
Bioethics - Johns Hopkins University  
Family Investigation of Nephropathy and Diabetes (FIND) study  
NOAHS Center, Smithsonian Institution

Societies:

1966 - Date	American Association for the Advancement of Science
1966 - Date	Genetics Society of America
1970 - Date	American Society of Naturalists
1976 - Date	Tissue Culture Association
1976 - Date	American Genetics Association
1979 - Date	New York Academy of Science
1984 - Date	American Association of Zoological Parks and Aquariums

Research Interests:

Human genetics, Comparative Genomics, Genetic Epidemiology, Molecular Evolution, HIV, FIV, AIDS, Virology, Bio-informatics , Forensic genetics, Conservation.

Honors, Administrative Appointments and Other Special Recognitions:

1966-1971	NIH genetics traineeship
1971-1973	NIH postdoctoral fellowship
1972-1978	Co-Chairman and founder, <b>Mid-Atlantic Drosophila Society</b>
1975-1976	Elected council representative, NCI Assembly of Scientists
1977-1978	President, <b>NCI Assembly of Scientists</b>
1979-Date	Elected New York Academy of Science
1979-Date	Member, International Committee on Comparative Gene Mapping
1982-Date	Appointed Research Fellow of <b>Smithsonian Institution</b> , Washington, D.C.
1983-Date	Elected Board of Trustees, American Type Culture Association, Rockville, MD
1984-Date	Appointed, Executive Board, American Type Culture Collection, Rockville, MD
1984-Date	Elected Board of Directors, American Genetics Association (AGA)
1985	<b>National Geographic Society</b> Research Award (for study of genetics and reproduction of East African cheetah)
1985-Date	Appointed, Chairman, Long Range Planning Committee, AGA
1985-Date	Founder and Co-Director, <b>NOAHS (New Opportunities in Animal</b>

1985-Date	<b>Health Sciences) Center for Wildlife Sciences</b> , Smithsonian Institution Member, <b>Cat Specialist Group</b> , International Union for Conservation of Nature, I.U.C.N., Geneva
1986	Recipient <b>World Wildlife Fund</b> Research Award (for study of genetic structure of relict populations of giant pandas)
1986-Date	Member, <b>Captive Breeding Specialist Group</b> , Species Survival Commission, I.U.C.N., Geneva
1986-Date	Advisor, Special Survival Plan-Cheetah, <b>American Zoological Association</b>
1987-Date	Secretary-Treasurer, Board of Trustees, <b>American Type Culture Collection</b>
1987-Date	Chairman, International Committee on Comparative Gene Mapping
1987-Date	Elected member <b>Cosmos Club</b> , Washington, D.C.
1988	Explorer's Club Annual Dinner Principal Lecture Award in Commemoration of the 100th Anniversary of the <b>National Geographic Society</b> .
1988-Date	Elected Fellow <b>Explorer's Club</b> , New York, N.Y.
1994-Date	Elected Fellow of the <b>American Academy of Arts and Sciences</b> .
1994	Distinguished Alumnus in Natural Sciences, St. Francis College, Loretto, PA
1997	Visiting Fellow, <b>Merton College</b> , Oxford University, Oxford
1998-Date	Elected Fellow, <b>American Association for the Advancement of Science</b>
1998	<b>Oscar W. Schlam Lectureship</b> Award School of Veterinary medicine University of California Davis
1998-2004	<b>Andrew Dixon White Professor-at-Large</b> , Cornell University
2006	Chairman Board of Trustees <b>Cheetah Conservation Fund</b>
2006	<b>Annual Citation Award for Outstanding Research in AIDS Cancer and Public Health</b> ; University of St Petersburg, St Petersburg, Russia
2006	Institution of the <b>Stephen J.O'Brien Award</b> for Outstanding Paper Published by <b>American Genetic Association</b>
2009	<b>Honorary Doctorate Degree in Veterinary Medicine</b> conferred by the College of Veterinary Medicine, University of Zurich, Switzerland

### Veterinary Research Honors:

1988	Explorer's Club Annual Dinner Principal Lecture Award in Commemoration of the 100th Anniversary of the <b>National Geographic Society</b> .
1998	<b>Oscar W. Schlam Lectureship</b> Award School of Veterinary Medicine University of California Davis
1998-2004	<b>Andrew Dixon White Professor-at-Large</b> , College of Veterinary Medicine Cornell University, Ithaca
2009	<b>Honorary Doctorate Degree in Veterinary Medicine</b> conferred by the College of Veterinary Medicine, University of Zurich, Switzerland

## **Financial Aspects**

**Stephen J. O'Brien**

### **I      Laboratory of Genomic Diversity: Budget – Gross (NCI)**

FY2001	\$7,016,429
FY2002	\$7,510,784
FY2003	\$8,828,256
FY2004	\$8,935,243
FY2005	\$9,120,307
FY2006	\$9,025,516
FY2007	\$9,219,830

II

Outside Grants and Contracts

<b>Title Of Grant</b>	<b>Granting Agency</b>	<b>Co-PI</b>	<b>Date</b>	<b>Total</b>
<b>Analysis of Circulatory Protein Extracts For Susceptibility to HIV</b>	NIAAA		1988/1993	\$630,000
<b>Susceptibility to HIV</b>				
Identification Of Genetic Variation In Candidate HIV Restriction Genes	NIH	Dean	1990	\$161,000
Characterization Of MDR Genes From Simple Eukaryotes	NCI	Dean	1992	\$150,000
Molecular Genetic Analysis Of FL Panthers	USFWS		1992	\$4,000
Molecular Genetic Approach To Taxonomic & Phylogenetic Relationships In South American Felids & Asian Small Cats	AAZPA		1992	\$80,852
Development and Detection of Polymorphisms in Comparative Mapping Anchor Loci Type I Markers by PCR-based Methods in Candida	Canine Health Foundation /AKC		1995	\$50,000
Molecular Genetic Analyses Of The FL Panther	FL Game & Fresh Water Fish Comm		1996	10,000
Development of Genetic Databases and Standard Health Evaluations For Pedigreed Domestic Cat Breeds.	Robert Winn Foundation	Lyons	1996	\$15,000
Construction of the Purina Cat-BAC Library For Gene Hunting in Felines	Ralston Purina	Lyons	1997	\$50,000
Identification of Genetic Risk Factors For Prostate Cancer In African Americans	NIH Office of Minority Health	Smith	1998	\$100,000
Development of Genetic Databases And Standard Health Evaluations For Pedigreed Domestic Cat Breeds	Robert Winn Foundation		1998	\$5,000
Department of Justice Interagency Agreement	DOJ/NCI	Raymond	2000	\$265,570
Characterization of Polymorphic Microsatellite Loci For Use in the Conservation and Management of Lynx Genus Species	Wildlife Conservation Society	Johnson	2000	\$5,000
The Role of Infectious Diseases in the Conservation of the Endangered Iberian	Madrid		2000	\$4,000

<u>Title Of Grant</u>	<u>Granting Agency</u>	<u>Co-PI</u>	<u>Date</u>	<u>Total</u>
An Integrated (Coding Gene and Microsatellite Marker) Radiation Hybrid Map of the Alpaca	Morris Animal Foundation	Johnson	2002	\$287,000
Molecular Genetics of African Elephants: Systematics, Biogeography, and Conservation	US Fish & Wildlife Service	Roca	2002	\$100,000
African American Admixture Mapping Applied to Prostate Cancer Gene Discovery	NCMHD	Smith	2003	\$471,447
A Global Study of the Molecular Genetics of Pangolins, the Scaly Anteaters	National Geographic Society	Johnson	2003	\$17,500
African American Admixture Mapping Applied to Prostate Cancer Gene (MALD)	NCMHD		2003	\$471,446
The Family Investigation of Nephropathy and Diabetes Study of African, Hispanic, Native and European Americans (FIND)	Institute of Diabetes and Digestive and Kidney Diseases		2003	\$2,657,210
A Full Genome Scan of the Human Genome for AIDS Restriction Genes (ARG)	NIAID		2003	\$3,000,000
Nestle Purina	Nestle Purina	Raymond	2004/2005	\$54,000
Molecular Analysis of Schizophrenia Genes	NIMH	Dean	2004/2006	\$374,212
ABC Transporters and Genetic Disease	Office of Rare Diseases	Dean	2004/2006	\$40,000
MGE Special Study p Feline Conference	NIDDK	Winkler	2004	\$66,000
MALD Meeting	Office of Rare Diseases		2005	\$25,000
ABCC6 Gene	Office of Rare Diseases	Smith	2005	\$20,000
ABCC6 Gene	PXE Foundation	Dean	2006	\$2,500
Role of HLA and KIR Genes in Severity of Lung Disease in Cystic Fibrosis	Cystic Fibrosis Foundation	Carrington	2005	\$40,000
Host Genetics of HIV-1 Subtype C Infection, Progression and treatment in Africa	NIAID RO1	Myron Essex	2007	\$2,100,000
A 1000K SNP /CNV/Haplotype based-Genome Wide Association (GWA) scan for AIDS Restriction Genes (ARGs)	NIH-Office of AIDS Research	Harvard U. Winkler, Smith	2007	\$2,700,000

## BOOKS

O'Brien, S.J.: **Tears of the Cheetah and Other Tales from the Genetic Frontier**, St. Martin's Press, New York, 2003, pp 273.

### **EDITED VOLUMES**

1. O'Brien, S.J., Menninger, J. C and Nash, W. G.: **An Atlas of Mammalian Genomes**. John Wiley & Sons Publishers, New York, NY, 2006.
2. O'Brien, S.J. (Ed.): Isozyme Bulletin, 1976, Vol. 9, pp. 1-79.
3. O'Brien, S.J. (Ed.): Isozyme Bulletin, 1977, Vol. 10, pp. 1-90.
4. O'Brien, S.J. (Ed.): Isozyme Bulletin, 1978, Vol. 11, pp. 1-68.
5. O'Brien, S.J. (Ed.): Genetic Maps, 1980, Vol. 1, pp. 1-28
6. O'Brien, S.J. (Ed.): Genetic Maps, 1982, Vol. 2, pp. 1-406.
7. O'Brien, S.J. (Ed.): Genetic Maps, 1984. Cold Spring Harbor Laboratory Press, New York, Vol. 3, 1984, 584 pp.
8. O'Brien, S.J. (Ed.): Genetic Maps, 1987. Cold Spring Harbor Laboratory Press, New York, Vol. 4, 842 pp.
9. Clegg, M. T., and O'Brien, S.J. (Eds.): Molecular Evolution, 1990, Vol. 122, Proceedings of a UCLA Colloquium, UCLA Symposia on Molecular and Cellular Biology, Lake Tahoe, CA, Wiley-Liss, New York, N.Y., pp. 1-322.
10. O'Brien, S.J. (Ed.): Genetic Maps: Locus Maps of Complex Genomes. Fifth Edition. 1990. Cold Spring Harbor Laboratory Press, New York, Unabridged 1104 pp.
11. O'Brien, S.J. (Ed.): Genetic Maps: Locus Maps of Complex Genomes. Fifth Edition. 1990. Cold Spring Harbor Laboratory Press, New York. Published in six volumes:

Book 1	Viruses	186 pp
Book 2	Bacteria, Protozoa, and Algae	138 pp
Book 3	Lower Eukaryotes	206 pp
Book 4	Nonhuman Vertebrates	180 pp
Book 5	Human Maps	262 pp
Book 6	Plant	152 pp
12. O'Brien, S.J. (Ed.): Genetic Maps: Locus Maps of Complex Genomes. Sixth Edition. 1993. Cold Spring Harbor Laboratory Press, New York. Unabridged 1617 pp.
13. O'Brien, S.J. (Ed.): Genetic Maps: Locus Maps of Complex Genomes. Sixth Edition. 1993. Cold Harbor Laboratory Press, New York. Published in six volumes:

Book 1	Viruses	205 pp
Book 2	Bacteria, Protozoa, and Algae	181 pp
Book 3	Lower Eukaryotes	318 pp
Book 4	Nonhuman Vertebrates	342 pp
Book 5	Human Maps	310 pp
Book 6	Plants	261 pp
14. O'Brien, S.J. and Clegg, M. T. (Eds.): Genes and Genomes. Curr. Opin. Genet. Devel. 3:

835-998, 1993.

15. Hartl, D. L., Kafatos, F., and O'Brien, S.J. (Eds.): Genomes and Evolution. *Curr. Opin. Genet. Devel.* 5: 705-847, 1995.
16. O'Brien, S.J. and Fraser, C. M. Genomes and Evolution. *Curr. Opin. Genet. Devel.* 15: 569-665, 2005

## SCIENTIFIC ARTICLES

1. O'Brien, S.J. and MacIntyre, R. J.: An analysis of gene enzyme variability in natural populations of *Drosophila melanogaster* and *D. simulans*. *Am. Nat.* 103: 97 113, 1969.
2. O'Brien, S.J. and MacIntyre, R. J.: Empirical demonstration of a transient linkage disequilibrium in *Drosophila*. *Nature* 230: 335 336, 1971.
3. O'Brien, S.J. and MacIntyre, R. J.: A biochemical genetic map of the *Drosophila* genome. *Drosophila Info. Serv.* 46: 89 93, 1971.
4. O'Brien, S.J. and MacIntyre, R. J.:  $\alpha$  glycerophosphate cycle in *Drosophila melanogaster*. I. Biochemical and developmental aspects. *Biochem. Genet.* 7: 141-161, 1972.
5. O'Brien, S.J. and MacIntyre, R. J.: The  $\alpha$  glycerophosphate cycle in *D. melanogaster*. II. Genetic aspects. *Genetics* 71: 127 138, 1972.
6. O'Brien, S.J. and MacIntyre, R. J.: The  $\alpha$  glycerophosphate cycle in *D. melanogaster*. III. The effect of "null" mutations at  $\alpha$  Gphd 1 locus on viability. *Am. Nat.* 106: 967 971, 1972.
7. O'Brien, S.J.: On estimating functional gene number in eukaryotes. *Nature New Biol.* 242: 52 54, 1973.
8. O'Brien, S.J.: Comparative analysis of malate dehydrogenase of *Drosophila melanogaster*. *Biochem. Genet.* 10: 191 205, 1973.
9. O'Brien, S.J. and Gethmann, R. C.: Segmental aneuploidy as a probe for structural genes in *Drosophila*: Mitochondrial membrane enzymes. *Genetics* 75: 155 167, 1973.
10. O'Brien, S.J. and Shimada, Y.: The  $\alpha$  glycerophosphate cycle in *Drosophila melanogaster*. Metabolic, ultrastructural, and adaptive consequences of  $\alpha$  Gphd 1 "null" mutations. *J. Cell Biol.* 63: 864 882, 1974.
11. O'Brien, S.J., Boone, C. W., Simonson, J. M., and Austin, F.: The paired label assay for cell surface antigens. *Tissue Cult. Assoc. Manual* 2: 423 427, 1975.
12. O'Brien, S.J.: Biochemical mutants of *Drosophila melanogaster*. In: King, R. C. (Ed.) *Handbook of Genetics*, Vol. III. New York, Plenum, 1975, pp. 669 678.
13. O'Brien, S.J., Kleiner, G., Kern, J., and Reynolds, J.: Zymogram phenotypes of widely used cell lines from various animal species. *Isozyme Bull.* 9: 20 27, 1976.
14. O'Brien, S.J.: Bvr 1, a restriction locus of a type C RNA virus in the feline cellular genome: Identification, location, and phenotypic characterization in cat x mouse somatic cell hybrids. *Proc. Natl. Acad. Sci. USA* 73: 4618-4622, 1976.
15. O'Brien, S.J., Simonson, J. M., and Boone, C. W.: Expression of virus structural proteins on murine cell surfaces in association with the production of murine leukaemia virus. *J. Gen. Virol.* 33: 355 360, 1976.
16. O'Brien, S.J.: Isozymes and allozymes as genetic footprints of cultured cells. In Petricianni, J. (Ed.): *Proceedings of the FDA Conference on Cell Substrates for Vaccine Production*, 1976, pp. 46n 59n.

17. MacIntyre, R. J. and O'Brien, S.J.: Interacting gene enzyme systems in *Drosophila*. *Ann. Rev. Genet.* 10: 281-318, 1976.
18. O'Brien, S.J., Kleiner, G., Olson, R., and Shannon, J.: Enzyme polymorphisms as genetic signatures in human cell cultures. *Science* 195: 1345-1348, 1977.
19. O'Brien, S.J. and Boone, C. W.: Expression of feline leukemia virus antigens on cat lymphoma cells: Kinetics of biosynthesis. *J. Gen. Virol.* 35: 511-523, 1977.
20. Lemons, R. S., O'Brien, S.J., and Sherr, C.J.: A new genetic locus, Bevi, on human chromosome 6 which controls the replication of baboon type C virus in human cells. *Cell* 12:251-262, 1977.
21. O'Brien, S.J. and MacIntyre, R. J.: Genetics and biochemistry of enzymes and specific proteins of *Drosophila*. In Wright, T. R. F. and Ashburner, M. (Eds.): *Genetics and Biology of Drosophila*, Vol IIa. New York, Academic, 1977, pp. 395-551.
22. O'Brien, S.J., Simonson, J. M., and Davis, S.: Deposition of retrovirus associated antigens (p30 and gp70) on cell membranes of feline and murine leukemia virus infected cells. *J. Gen. Virol.* 38: 483-496, 1978.
23. O'Brien, S.J. and Simonson, J. M.: Bvr 1: A restriction locus of a type C RNA virus in the feline cellular genome: Pleiotropic restriction of endogenous BALB virus in cat X mouse somatic cell hybrids. *J. Exp. Med.* 147: 219-232, 1978.
24. Lemons, R. S., O'Brien, S.J., and Sherr, C. J.: The Bevi locus (chromosome 6) encodes a post-penetrational cellular function required for baboon endogenous virus replication in human cells. *Cytogenet. Cell Genet.* 22: 255-259, 1978.
25. Lemons, R. S., Nash, W. G., O'Brien, S.J., Benveniste, R. E., and Sherr, C. J.: A gene (Bevi) on human chromosome 6 is an integration site for baboon type C DNA provirus in human cells. *Cell* 14: 995-1005, 1978.
26. Engel, L. W., Young, N. A., Tralka, T. S., Lippman, M. E., O'Brien, S.J., and Joyce, M. J.: Establishment and characterization of three new continuous cell lines derived from human breast carcinomas. *Cancer Res.* 38:3352-3364, 1978.
27. Kucera, L. S., Simonson, J. M., O'Brien, S.J., and Coon, H.: On the Lucke tumor origin of LT 1 cells. *J. Natl. Cancer Inst.* 60: 493-495, 1978.
28. O'Brien, S.J. and Rice, M. C.: Genetic aspects of carcinogenesis and carcinogen testing in outbred Swiss mice. *J. Toxicol. Environ. Health* 5:69-81, 1979.
29. Noguchi, P., Wallace, R., Johnson, J., Earley, E. M., O'Brien, S.J., Ferrone, S., Pellegrino, M. A., Milstein, J., Needy, C., Browne, W., and Petriceianni, J.: Characterization of the WIDR: A human colon carcinoma cell line. *In Vitro* 15: 401-408, 1979.
30. Surti, U., Szulman, A. E., and O'Brien, S.J.: Complete (classic) hydatidiform mole with 46,XY karyotype of paternal origin. *Hum. Genet.* 51: 153-155, 1979.
31. O'Brien, S.J. and Rice, M. C.: Specific genetic loci as targets of carcinogens and tumor promoters in mammals. *J. Environ. Pathol. Toxicol.* 2: 1055-1068, 1979.
32. Gail, M. H., Weiss, G. H., Mante, N., and O'Brien, S.J.: A solution to the generalized birthday problem with application to allozyme screenings for cell culture contamination. *J. Appl. Prob.*

16:242-251, 1979.

33. Gardner, M. B., Rasheed, S., Pal, B. K., Estes, J. D., and O'Brien, S.J.: Akvr 1, a dominant MuLV restriction gene segregates in leukemia prone wild mice. In Yohn, D. S., Lapin, B. A., and Blakeslee, J. R. (Eds.): Comparative Leukemia Research. New York, Elsevier/North Holland, 1979, pp. 149-150.
34. Pearson, P. L., Roderick, T. H., Davisson, M. T., Garver, J. J., Warburton, D., Lalley, P. A., and O'Brien, S.J.: Report of the committee on comparative gene mapping. *Cytogenet. Cell Genet.* 25: 82-95, 1979.
35. Rice, M. C. and O'Brien, S.J.: Genetic variance of laboratory outbred Swiss mice. *Nature* 283: 157-161, 1980.
36. Gardner, M. B., Rasheed, S., Pal, B. K., Estes, J. D., and O'Brien, S.J.: Akvr 1, a dominant murine leukemia virus restriction gene is polymorphic in leukemia prone wild mice. *Proc. Natl. Acad. Sci. USA* 77:531-535, 1980.
37. O'Brien, S.J., Shannon, J. E., and Gail, M. H.: A molecular approach to the identification and individualization of human and animal cells in culture: Isozyme and allozyme genetic signatures. *In Vitro* 16: 119 135, 1980.
38. Rice, M. C., Gardner, M. B., and O'Brien, S.J.: Genetic diversity in leukemia-prone feral house mice infected with murine leukemia virus. *Biochem. Genet.* 8: 915 928, 1980.
39. Nelson Rees, W. A., Hunter, L., Darlington, G. J., and O'Brien, S.J.: Characteristics of HeLa strains: Permanent vs. variable features. *Cytogenet. Cell Genet.* 27: 216 231, 1980.
40. O'Brien, S.J.: The extent and character of biochemical genetic variation in the domestic cat (*Felis catus*). *J. Hered.* 71: 2 8, 1980.
41. O'Brien, S.J., Gail, M. H., and Levin, D. L.: Correlative genetic variation in natural populations of cats, mice and men. *Nature* 288: 580 583, 1980.
42. Gardner, M. B., Rasheed, S., Pal, B. K., Estes, J. D., Berman, E., and O'Brien, S.J.: Genetic analysis of Akvr 1 relative to other murine retrovirus restriction loci. In Baltimore, D., Huang, A. S., and Fox, C. F. (Eds.): Proceedings of ICN UCLA Symposium on Animal Virology. 1980, pp. 223 232.
43. O'Brien, S.J., Nash, W. G., Simonson, J. M., and Berman, E. J.: Establishment of a biochemical genetic map of the domestic cat (*Felis catus*). In Hardy, W. D., Essex, M., and McClelland, A. J. (Eds.): Feline Leukemia Virus. New York, Elsevier/North Holland, 1980, pp. 401 412.
44. O'Brien, S.J. and Nash, W. G.: Somatic cell genetic analysis of enzyme structural genes of the domestic cat (*Felis catus*). *Carnivore Genet.* 4: 81 88, 1980.
45. Harris, N. L., Gang, D. L., Quay, S. C., Poppema, S., Nelson Rees, W. A., and O'Brien, S.J.: Contamination of Hodgkin's disease cell cultures. *Nature* 289: 228-230, 1981.
46. O'Brien, S.J., Simonson, J. M., Grabowski, M. W., and Barile, M. F.: Analysis of multiple isoenzyme expression among twenty two species of Mycoplasma and Acholeplasma. *J. Bacteriol.* 146: 222 232, 1981.
47. O'Brien, S.J., Nash, W. G., Benveniste, R. E., Wildt, D. E., and Bush, M. E.: Palaeontological

- and molecular views of panda phylogeny. *Nature* 319: 428, 1986.
48. O'Brien, S.J. and Nash, W. G.: Genetic mapping in mammals: Chromosome map of the domestic cat. *Science* 216: 257 265, 1982.
49. O'Brien, S.J.: Plausible alternatives to bottlenecks to explain reduced genetic diversity. *Trends Ecol. Evol.* 4: 176-178, 1989.
50. Anagnou, N. P., Antonarakis, S. E., O'Brien, S.J., and Nienhuis, A. W.: A novel form of human polymorphism involving the hDHFR-psi 1 pseudogene identifies three RFLPs. *Nucleic Acids Res.* 15: 5501, 1987.
51. O'Brien, S.J., Moore, J. L., Martin, M. A., and Womack, J. E.: Evidence for the horizontal acquisition of murine AKR virogenes by recent horizontal infection of the germ line. *J. Exp. Med.* 155: 1120 1123, 1982.
52. O'Brien, S.J. and Barile, M. F.: Isozyme resolution in mycoplasmas. In Razin, S. and Tully, J. G. (Eds.): *Methods of Mycoplasmology*, Vol. I. New York, Academic, 1982, pp. 391 396.
53. O'Brien, S.J., Nash, W. G., Winkler, C. A., and Reeves, R. H.: Genetic analysis in the domestic cat as an animal model for inborn errors, cancer and evolution. *Prog. Clin. Biol. Res.* 94: 67-90, 1982.
54. O'Brien, S.J., Simonson, J. M., and Eichelberger, M. A.: Genetic analysis of hybrid cells using isozyme markers as monitors of chromosome segregation. In Shay, J. W. (Ed.): *Techniques in Somatic Cell Genetics*. New York, Plenum, 1982, pp. 513 524.
55. Pearson, P. L., Roderick, T. H., Davisson, M. T., Lalley, P. A., and O'Brien, S.J.: Report of the committee on comparative mapping. Oslo Conference (1981): Sixth International Workshop on Human Gene Mapping. *Cytogenet. Cell Genet.* 32: 208 220, 1982.
56. Nash, W. G. and O'Brien, S.J.: Conserved regions of homologous G banded chromosomes between orders in mammalian evolution: Carnivores and primates. *Proc. Natl. Acad. Sci. USA* 79: 6631 6635, 1982.
57. O'Brien, S.J. and Johnson, P. A.: An abridged human gene map including oncogenes, neoplasia-related loci and biochemical loci whose homologous counterparts have been assigned in other mammalian species. In O'Brien, S.J. (Ed.): *Genetic Maps*, Vol. 4. New York, Cold Spring Harbor Laboratory, 1987, pp. 598-604.
58. O'Brien, S.J.: Genetic map of the domestic cat, *Felis catus*. In O'Brien, S.J. (Ed.): *Genetic Maps*, Vol. 4. New York, Cold Spring Harbor Laboratory, 1987, pp. 482-485.
59. O'Brien, S.J., Nash, W. G., Winkler, C. A., Simonson, J. M., and Lemons, R. S.: Control of integration of baboon endogenous virus in human chromosomes by the BEVI locus. In Yohn, D. S. and Blakeslee, R. J. (Eds.): *Comparative Leukemia Research*. New York, Elsevier/North Holland, 1981, pp. 399 400.
60. O'Brien, S.J., Wildt, D. E., Simonson, J. M., Brand, D. J., Ebedes, H., van Dyk, A., Meltzer, D., Simmons, L. G., and Bush, M.: On the extent of genetic variation of the African cheetah, *Acinonyx jubatus*. In Fowler, M. (Ed.): *Proceedings of the American Association of Zoo Veterinarians*, 1981, pp. 74 77.
61. Seibert, K., Shafie, S. M., Tricke, T. J., Whang Peng, J. J., O'Brien, S.J., Toney, J. H., Huff, K.

- K., and Lippman, M. E.: Clonal variation of MCF 7 breast cancer cells in vivo and in athymic nude mice. *Cancer Res.* 43: 2223 2239, 1983.
62. Surti, U., Szulman, A. E., and O'Brien, S.J.: Dispermic origin and clinical outcome of three complete hydatidiform moles with 46,XY karyotype. *J. Obstet. Gynecol.* 144: 84 87, 1982.
63. O'Brien, S.J., Wildt, D. E., Goldman, D., Merril, C. R., and Bush, M.: The cheetah is depauperate in genetic variation. *Science* 221: 459 462, 1983.
64. Wildt, D. E., Bush, M., Howard, J. G., O'Brien, S.J., Meltzer, D., van Dyk, A., Ebedes, H., and Brand, D. J.: Unique seminal quality in the South African cheetah and a comparative evaluation in the domestic cat. *Biol. Reprod.* 29:1019 1025, 1983.
65. O'Brien, S.J., Simonson, J. M., Razine, S., and Barile, M. F.: On the distribution and characteristics of isozyme expression in Mycoplasma, Acholeplasma, and Ureaplasma species. *Yale J. Biol. Med.* 56: 701 708, 1983.
66. O'Brien, S.J., Bonner, T. I., Cohen, M., O'Connell, C., and Nash, W. G.: Mapping of an endogenous retroviral sequence to human chromosome 18. *Nature* 303: 74 77, 1983.
67. O'Brien, S.J., Nash, W. G., Goodwin, J. L., Lowy, D. R., and Chang, E. H.: Dispersion of the ras family of transforming genes to four different chromosomes in man. *Nature* 302:839-842, 1983.
68. O'Brien, S.J., Berman, E. J., Estes, J. D., and Gardner, M. B.: Murine retroviral restriction genes Fv 4 and Akvr 1 are alleles of a single locus. *J. Virol.* 47: 649 651, 1983.
69. Barile, M. F., Grabowski, M. W., Stephens, E. B., O'Brien, S.J., Simonson, J. M., Izumikawa, K., Chandler, D. K. F., Taylor Robinson, D., and Tully, J. G.: Mycoplasma hominis tissue cell interactions: A review with new observations on phenotypic and genotypic properties. *Sex Transm Dis* 10: 345 354, 1983.
70. Reeves, R. H. and O'Brien, S.J.: Molecular genetic characterization of the RD 114 gene family of endogenous feline retroviral sequences. *J Virol* 52:164-171, 1984.
71. Reeves, R. H., Nash, W. G., and O'Brien, S.J.: Genetic mapping of endogenous RD 114 retroviral sequences of domestic cats. *J Virol* 56:303-306, 1985.
72. Bonner, T., O'Brien, S.J., Nash, W. G., Rapp, U. R., Morton, C. C., and Leder, P.: The human homologs of the raf (mil) oncogene are located on human chromosomes 3 and 4. *Science* 223:71-74, 1984.
73. Wayne, R. and O'Brien, S.J.: Empirical demonstration that structural gene and morphometric variation of mandible traits are uncoupled between mouse strains. *J. Mammal.* 67:441-449, 1986.
74. Seigel, L. J., Harper, M. E., Wong Staal, F., Gallo, R. C., Nash, W. G., and O'Brien, S.J.: Gene for T cell growth factor: Location on human chromosome 4q and feline chromosome B1. *Science* 223: 175 178, 1984.
75. Roderick, T. H., Lalley, P. A., Davisson, M. T., O'Brien, S.J., Womack, J. E., Creau Goldberg, N., Echard, G., and Moore, K. L.: Report of the committee on comparative mapping. *Cytogenet. Cell Genet.* 37: 312 339, 1984.
76. O'Brien, S.J., Reeves, R. H., Simonson, J. M., Eichelberger, M. A., and Nash, W. G.: Parallels of genomic organization and endogenous retrovirus organization in cat and man. *Develop. Genet.* 4:

341 354, 1984.

77. O'Brien, S.J., Nash, W. G., Bauer, R., Chang, E. H., and Seigel, L. J.: Trends in chromosomal and oncogene evolution in vertebrates. In Patterson, M. K. (Ed.): *Uses and Standardization of Vertebrate Cell Cultures*. In Vitro Monograph No. 5. Gaithersburg, Tissue Culture Association, 1984, pp. 204-214.
78. Seigel, L. J., Nash, W. G., Manzari, V., Wong Staal, F., Gallo, R. C., and O'Brien, S.J.: A genetic analysis of human T-cell leukemia virus integration in HUT 102 and the localization of the structural gene for T cell growth factor to chromosome 4. In Gallo, R. C. and Essex, M. (Eds): *Human T-Cell Leukemia/Lymphoma Viruses*. New York, Cold Spring Harbor Laboratory, 1984, pp. 167-180.
79. O'Brien, S.J., Goldman, D., Knight, J., Moore, H. D., Wildt, D. E., Bush, M., Montali, R. J., and Kleiman, D.: Giant panda paternity. *Science* 223: 1127-1129, 1984.
80. Anagnou, N. P., O'Brien, S.J., Shimada, T., Nash, W. G., Chen, M., and Nienhuis, A. W.: Chromosomal organization of the human dihydrofolate reductase genes: Dispersion, selective amplification and a novel form of polymorphism. *Proc. Natl. Acad. Sci. USA* 81: 5170-5174, 1984.
81. O'Brien, S.J., Roelke, M. E., Marker, L., Newman, A., Winkler, C. A., Meltzer, D., Colly, L., Evermann, J. F., Bush, M., and Wildt, D. E.: Genetic basis for species vulnerability in the cheetah. *Science* 227: 1428-1434, 1985.
82. Newman, A., Bush, M., Wildt, D. E., van Dam, D., Frankehuis, M., Simmons, L., Phillips, L., and O'Brien, S.J.: Biochemical genetic variation in eight endangered feline species. *J. Mammal.* 66: 256-267, 1985.
83. Stephens, J. C., Chipperfield, M. A., and O'Brien, S.J.: An abridged human gene map. In O'Brien, S.J. (Ed.): *Genetic Maps: Locus Maps of Complex Genomes*, Sixth Edition. New York, Cold Spring Harbor Laboratory, 1993, pp. 5.209-5.239
84. O'Brien, S.J., Seuanez, H. N., and Womack, J. E.: On the evolution of genome organization in mammals. In: MacIntyre, R. J. (Ed.) *Molecular Evolutionary Genetics (Monographs in Evolutionary Biology Series)*. New York, Plenum, 1985, pp. 519-589.
85. Burk, R. D., Szabo, P., O'Brien, S.J., Nash, W. G., Yu, L., and Smith, K. D.: Organization and chromosomal specificity of autosomal homologs of human Y chromosome repeated DNA. *Chromosoma* 92: 225-233, 1985.
86. O'Connell, C., O'Brien, S.J., Nash, W. G., and Cohen, M.: ERV3, a full length human endogenous provirus: Chromosomal localization and evolutionary relationship. *J. Virol.* 138: 225-234, 1984.
87. Wayne, R. K., Modi, W. S., and O'Brien, S.J.: Morphological variability in the cheetah (*Acinonyx jubatus*), a genetically uniform species. *Evolution* 40: 78-85, 1986.
88. Collier, G. E. and O'Brien, S.J.: A molecular phylogeny of the Felidae: Immunological distance. *Evolution* 39: 473-487, 1985.
89. Longo, D. L., Gelmann, E. P., Cossman, J., Young, R. A., Gallo, R. C., O'Brien, S.J., and Matis, L. A.: Isolation of HTLV transformed B lymphocyte clone from a patient with HTLV associated adult T cell leukaemia. *Nature* 310: 505-506, 1984.

90. O'Brien, S.J.: Genetic and reproductive approaches to an endangered species, the giant panda. In Wagner, R. O. (Ed.): Proceedings of the Association of Zoological Parks and Aquariums. Miami, AAZPA, 1984, pp. 169-180.
91. O'Brien, S.J., Benveniste, R. E., Nash, W. G., Simonson, J. M., Eichelberger, M. A., Wildt, D. E., and Bush, M.: Constructing a molecular phylogeny of the giant panda, *Ailuropoda melanoleuca*. In Klos, H. G. and Fradrich, H. (Eds.): Proceedings International Symposium on Giant Panda, 1984, Vol. 10. Berlin, Bongo, 1985, pp. 175-182.
92. O'Brien, S.J., Nash, W. G., Wildt, D. E., Bush, M. E., and Benveniste, R. E.: A molecular solution to the riddle of the giant panda's phylogeny. *Nature* 317: 140-144, 1985.
93. Brownell, E., O'Brien, S.J., Nash, W. G., and Rice, N.: Genetic characterization of human c rel sequences. *Mol. Cell. Biol.* 5: 2826-2831, 1985.
94. Goldman, D., Goldin, L. G., Rathnagiri, P., O'Brien, S.J., Egeland, J. A., and Merrill, C. R.: Twenty seven protein polymorphisms by two dimensional electrophoresis of serum erythrocytes and fibroblasts in two pedigrees. *Am. J. Hum. Genet.* 37: 898-911, 1985.
95. Surti, U., Szulman, A. E., Wagner, K., Leppert, M., White, R., and O'Brien, S.J.: Tetraploid partial hydatidiform moles: Two cases with a triple paternal contribution and a 92,XXXY karyotype. *Hum. Genet.* 72: 15-21, 1986.
96. Wayne, R. K., Forman, L., Newman, A. K., Simonson, J. M., and O'Brien, S.J.: Genetic monitors of captive zoological populations: Morphological and electrophoretic assays. *Zoo Biol.* 5: 215-232, 1986.
97. Goldman, D., Giri, P.R., and O'Brien, S.J.: A molecular phylogeny of the hominoid primates as indicated by two-dimensional protein electrophoresis. *Proc. Natl. Acad. Sci. USA* 84: 3307-3311, 1987.
98. Forman, L., Kleiman, D. G., Bush, M. R., Dietz, J. M., Ballou, J. D., Phillips, L. G., Dietz, J. L., Coimbra Filho, A. F., and O'Brien, S.J.: Genetic variation within and among lion tamarins. *Am. J. Phys. Anthropol.* 71: 1-11, 1986.
99. Nienhuis, A. W., Bunn, H. F., Turner, P. H., Gopal, T. V., Nash, W. G., O'Brien, S.J., and Sherr, C. J.: Expression of the human c fms proto oncogene in hematopoietic cells and its deletion in the 5q- syndrome. *Cell* 42: 421-428, 1985.
100. Watson, D. K., Smith, M. J., Kozak, C., Reeves, R., Gearhart, J., Nunn, M. F., Nash, W., Fowle, J. R., III, Duesberg, P., Papas, T. S., and O'Brien, S.J.: Conserved chromosomal positions of dual domains of the ets proto oncogene in cats, mice and man. *Proc. Natl. Acad. Sci. USA* 83: 1792-1796, 1986.
101. Watson, D. K., McWilliams Smith, M. J., Nunn, M. F., Duesberg, P. H., O'Brien, S.J., and Papas, T. S.: The ets sequence from the transforming gene of avian erythroblastosis virus, E26, has unique domains on human chromosomes 11 and 21: Both loci are transcriptionally active. *Proc. Natl. Acad. Sci. USA* 82: 7294-7298, 1985.
102. Brownell, E., Kozak, C. A., Fowle, J. R., Modi, W. S., Rice, N. R., and O'Brien, S.J.: Comparative genetic mapping of cellular rel sequences in man, mouse, and the domestic cat. *Am. J. Hum. Genet.* 39: 194-202, 1986.

103. Berman, E. J., Nash, W. G., Seuanez, H. N., and O'Brien, S.J.: Chromosomal mapping of enzyme loci in the domestic cat: GSR to C2, ADA and ITPA to A3, and LDHA ACP2 to D1. *Cytogenet Cell Genet* 41: 114-120, 1986.
104. Seigel, L. J., Nash, W. G., Poiesz, B. J., Moore, J. L., and O'Brien, S.J.: Dynamic and nonspecific dispersal of human T-cell leukemia/lymphoma virus type I integration in cultured lymphoma cells. *Virology* 154: 67-75, 1986.
105. Seigel, L. J., Ratner, L., Josephs, S. F., Derse, D., Feinberg, M. B., Reyes, G. R., O'Brien, S.J., and Wong Staal, F.: Transactivation induced by human T lymphotropic virus type III (HTLV III) maps to a viral sequence encoding 58 amino acids and lacks tissue specificity. *Virology* 148: 226-231, 1986.
106. Steele, P. E., Martin, M. A., Rabson, A. B., Bryan, T., and O'Brien, S.J.: Amplification and chromosomal dispersion of human endogenous retroviral sequences. *J Virol* 59: 545-550, 1986.
107. O'Brien, S.J.: Genetic analysis in mammals: Past, present, and future. *Basic Life Sci.* 37: 139-149, 1986.
108. O'Brien, S.J., Wildt, D. E., and Bush, M.: The cheetah in genetic peril. *Sci. Am.* 254: 84-92, 1986.
109. Papas, T. S., Watson, D. K., Sacchi, N., O'Brien, S.J., and Ascione, R.: The mammalian ets genes: Two unique chromosomal locations in cat, mice and man and novel translocated position in human leukemias. In Hagenbeck, A. and Lowenberg, B. (Eds.): *Minimal Residual Disease in Acute Leukemia*: 1986. Boston, Martinus Nijhoff/Dordrecht, 1986, pp. 23-42.
110. Wildt, D. E., Schiewe, M. C., Schmidt, P. M., Goodrowe, K. L., Howard, J. G., Phillips, L. G., O'Brien, S.J., and Bush, M.: Developing animal model systems for embryo technologies in rare and endangered wildlife. *Theriogenology* 25: 33-51, 1986.
111. O'Brien, S.J., Haskins, M. E., Winkler, C. A., Nash, W. G., and Patterson, D. F.: Chromosomal mapping of beta globin and albino loci in the domestic cat: A conserved mammalian chromosome group. *J. Hered.* 77: 374-378, 1986.
112. O'Brien, S.J.: Molecular genetics in the domestic cat and its relatives. *Trends Genet.* 2: 137-142, 1986.
113. O'Brien, S.J., Collier, G. E., Benveniste, R. E., Nash, W. G., Newman, A. K., Simonson, J. M., Eichelberger, M. A., Seal, U. S., Bush, M., and Wildt, D. E.: Setting the molecular clock in Felidae: The great cats, *Panthera*. In Tilson, R. L. and Seal, U. S. (Eds.): *Tigers of the World: The Biology, Biopolitics, Management and Conservation of an Endangered Species*. Park Ridge, New Jersey, Noyes Publications, 1987, pp. 10-27.
114. O'Brien, S.J., Wildt, D. E., Bush, M., Caro, T. M., FitzGibbon, C., Aggundey, I., and Leakey, R. E.: East African cheetahs: Evidence for two population bottlenecks? *Proc. Natl. Acad. Sci. USA* 84: 508-511, 1987.
115. Goldman, D., Rathna Giri, P., and O'Brien, S.J.: Molecular genetic-distance estimates among the Ursidae as indicated by one- and two-dimensional protein electrophoresis. *Evolution* 43: 282-295, 1989.
116. Park, M., Dean, M., Cooper, C. S., Schmidt, M., O'Brien, S.J., Blair, D. G., and Vande Woude, G. F.: Mechanism of met oncogene activation. *Cell* 45: 895-904, 1986.

117. Jaye, M., Howk, R., Burgess, W., Ricca, G. A., Chiu, I. M., Ravera, M. W., O'Brien, S.J., Modi, W. S., Maciag, T., and Drohan, W. N.: Human endothelial cell growth factor: Cloning, nucleotide sequence, and chromosome localization. *Science* 233: 541-545, 1986.
118. Schuchman, E. H., O'Brien, S.J., and Desnick, R. J.: Assignment of the feline alpha-L-iduronidase gene to chromosome D4. *Genomics* 4: 442-444, 1989.
119. Papas, T. S., Watson, D. K., Sacchi, N., O'Brien, S.J., and Ascione, R.: The cellular ets genes: Molecular biology and clinical implications in human leukemias. *Cancer Invest.* 4: 555-574, 1986.
120. Watson, D. K., Sacchi, N., McWilliams Smith, M. J., O'Brien, S.J., and Papas, T. S.: The avian and mammalian ets genes: Molecular characterization, chromosome mapping, and implication in human leukemia. *Anticancer Res.* 6: 631-636, 1986.
121. Papas, T. S., Watson, D. K., Sacchi, N., O'Brien, S., and Ascione, R.: The cellular ets genes: Molecular probes in human neoplasia. *Haematologica* 72(Suppl): 6-18, 1987.
122. Wayne, R. K., Nash, W. G., and O'Brien, S.J.: Chromosomal evolution of the Canidae: I. Species with high diploid numbers. *Cytogenet. Cell Genet.* 44: 123-133, 1987.
123. Wayne, R. K., Nash, W. G., and O'Brien, S.J.: Chromosomal evolution of the Canidae: II. Divergence from the primitive carnivore karyotype. *Cytogenet. Cell Genet.* 44: 134-141, 1987.
124. Hentze, M. W., Keim, S., Papadopoulos, P., O'Brien, S.J., Modi, W. S., Drysdale, J., Leonard, W. J., Harford, J. B., and Klausner, R. D.: Cloning, characterization, expression, and chromosomal localization of a human ferritin heavy-chain gene. *Proc. Natl. Acad. Sci. USA* 83: 7226-7230, 1986.
125. Anagnou, N. P., Antonarakis, S. E., O'Brien, S.J., Modi, W. S., and Nienhuis, A. W.: Chromosomal localization and racial distribution of the polymorphic human dihydrofolate reductase pseudogene (DHFRP1). *Am. J. Hum. Genet.* 42: 345-352, 1988.
126. Papas, T. S., Watson, D. K., Sacchi, N., O'Brien, S.J., and Ascione, R.: Molecular evolution of ets genes from avians to mammals and their cytogenetic localization to regions involved in leukemia. *Gene Amplif Anal.* 4: 207-238, 1986.
127. Wildt, D. E., O'Brien, S.J., Howard, J. G., Caro, T. M., Roelke, M. E., Brown, J. L., and Bush, M.: Similarity in ejaculate-endocrine characteristics in captive versus free-ranging cheetahs of two subspecies. *Biol. Reprod.* 36: 351-360, 1987.
128. O'Brien, S.J., Martenson, J. S., Packer, C., Herbst, L., de Vos, V., Joslin, P., Ott-Joslin, J., Wildt, D. E., and Bush, M.: Biochemical genetic variation in geographic isolates of African and Asiatic lions. *Natl. Geo. Res.* 3: 114-124, 1987.
129. O'Brien, S.J., Joslin, P., Smith, G. L., III, Wolfe, R., Schaffer, N., Heath, E., Ott-Joslin, J., Rawal, P. P., Bhattacherjee, K. K., and Martenson, J. S.: Evidence for African origins of founders of the Asiatic lion species survival plan. *Zoo Biol.* 6: 99-116, 1987.
130. Modi, W. S., Nash, W. G., Ferrari, A. C., and O'Brien, S.J.: Cytogenetic methodologies for gene mapping and comparative analyses in mammalian cell culture systems. *Gene Anal. Tech.* 4: 75-85, 1987.

131. Wayne, R. K., Benveniste, R. E., Janczewski, D. N., and O'Brien, S.J.: Molecular and biochemical evolution of the Carnivora. In Gittleman, J. L. (Ed.): *Carnivore Behavior, Ecology and Evolution*. New York, Cornell University, 1989, pp. 465-494.
132. Kinzler, K. W., Bigner, S. H., Bigner, D. D., Trent, J. M., Law, M. L., O'Brien, S.J., Wong, A. J., and Vogelstein, B.: Identification of an amplified highly expressed gene in a human glioma. *Science* 236: 70-73, 1987.
133. Epstein, N. D., Karlsson, S., O'Brien, S., Modi, W., Moulton, A., and Nienhuis, A. W.: A new moderately repetitive DNA sequence family of novel organization. *Nucleic Acids Res.* 15: 2327-2341, 1987.
134. Wildt, D. E., Bush, M., Goodrowe, K. L., Packer, C. Pusey, A. E., Brown, J. L., Joslin, P., and O'Brien, S.J.: Reproductive and genetic consequences of founding isolated lion populations. *Nature* 329: 328-331, 1987.
135. Modi, W. S., Wayne, R. K., and O'Brien, S.J.: Analysis of fluctuating asymmetry in cheetahs. *Evolution* 41: 227-228, 1987.
136. Wayne, R. K. and O'Brien, S.J.: Allozyme divergence within the Canidae. *Syst. Zool.* 36: 339-355, 1987.
137. Nash, W. G. and O'Brien, S.J.: A comparative chromosome banding analysis of the Ursidae and their relationship to other Carnivores. *Cytogenet. Cell Genet.* 45: 206-212, 1987.
138. Killen, P. D., Francomano, C. A., Yamada, Y., Modi, W. S., and O'Brien, S.J.: Partial structure of the human alpha 2(IV) collagen chain and chromosomal localization of the gene (COL4A2). *Hum. Genet.* 77: 318-324, 1987.
139. O'Brien, S.J. and Knight, J. A.: The future of the giant panda. *Nature* 325: 758-759, 1987.
140. O'Brien, S.J.: The ancestry of the giant panda. *Sci. Am.* 257: 102-107, 1987.
141. O'Brien, S.J., Martenson, J. S., Eichelberger, M. A., Thorne, E. T., and Wright, F. W.: Genetic variation and molecular systematics of the black-footed ferret. In Seal, U. S., Thorne, E. T., Bogan, M. A., and Anderson, S. H. (Eds.): *Conservation Biology and the Black-Footed Ferret*. New Haven, Yale University, 1989, pp. 21-23.
142. Yuhki, N. and O'Brien, S.J.: Molecular characterization and genetic mapping of class I and class II MHC genes of the domestic cat. *Immunogenetics* 27: 414-425, 1988.
143. Marker, L. and O'Brien, S.J.: Captive breeding of the cheetah (*Acinonyx jubatus*) in North American Zoos (1871-1985). *Zoo Biol.* 8: 3-16, 1989.
144. Kamholz, J., Spielman, R., Gogolin, K., Modi, W., O'Brien, S., and Lazzarini, R.: The human myelin-basic-protein gene: Chromosomal localization and RFLP analysis. *Am. J. Hum. Genet.* 40: 365-373, 1987.
145. el Awady, M. K., Kaplan, J. B., O'Brien, S.J., and Burk, R. D.: Molecular analysis of integrated human papillomavirus 16 sequences in the cervical cancer cell line SiHa. *Virology* 159: 389-398, 1987.
146. Le Beau, M. M., Epstein, N. D., O'Brien, S.J., Nienhuis, A. W., Yang, Y.-C., Clark, S. C., and Rowley, J. D.: The interleukin 3 gene is located on human chromosome 5 and is deleted in

- myeloid leukemias with a deletion of 5q. Proc. Natl. Acad. Sci. USA 84: 5913-5917, 1987.
147. Jaye, M., Modi, W. S., Ricca, G. A., Mudd, R., Chiu, I.-M., O'Brien, S.J., and Drohan, W. N.: Isolation of a cDNA clone for the human laminin-B1 chain and its gene localization. Am. J. Hum. Genet. 41: 605-615, 1987.
148. Dean, M., Kozak, C., Robbins, J., Callahan, R., O'Brien, S., and Vande Woude, G. F.: Chromosomal localization of the met proto-oncogene in the mouse and cat genome. Genomics 1:167-173, 1987.
149. Graninger, W. B., Goldman, P. L., Morton, C. C., O'Brien, S.J., and Korsmeyer, S.J.: The kappa deleting element: Germline and rearranged, duplicated and dispersed forms. J Exp Med 167:488-501, 1988.
150. Modi, W. S. and O'Brien, S.J.: Quantitative cladistic analyses of chromosomal banding data among species in three orders of mammals: Hominoid primates, felids and arvicolid rodents. In Gustafson, J. P. and Appels, R. (Eds.): Chromosome Structure and Function. New York, Plenum, 1988, pp. 215-242.
151. Goodrowe, K. L., Wall, R. J., O'Brien, S.J., Schmidt, P. M., and Wildt, D. E.: Developmental competence of domestic cat follicular oocytes after fertilization in vitro. Biol. Reprod. 39:355-372, 1988.
152. Lalley, P. A., O'Brien, S.J., Creau-Goldberg, N., Davisson, M. T., Roderick, T. H., Echard, G., Womack, J. E., Graves, J. M., Doolittle, D. P., and Guidi, J. N.: Report of the committee on comparative mapping. Human Gene Mapping 9. Cytogenet. Cell Genet. 46:367-389, 1987.
153. Gilbert, D. A., O'Brien, J. S. and O'Brien, S.J.: Chromosomal mapping of lysosomal enzyme structural genes in the domestic cat. Genomics 2: 329-336, 1988.
154. Modi, W. S., Masuda, A., Yamada, M., Oppenheim, J. J., Matsushima, K., and O'Brien, S.J.: Chromosomal localization of the human interleukin 1alpha (IL-1 alpha) gene. Genomics 2: 310-314, 1988.
155. O'Brien, S.J. and Evermann, J. F.: Interactive influence of infectious disease and genetic diversity in natural populations. Trends Ecol. Evol. 3: 254-259, 1988.
156. Yuhki, N., Heidecker, G. F., and O'Brien, S.J.: Characterization of MHC cDNA clones in the domestic cat: Diversity and evolution of class I genes. J. Immunol. 142: 3676-3682, 1989.
157. Fanning, T. G., Modi, W. S., Wayne, R. K., and O'Brien, S.J.: Evolution of heterochromatin-associated satellite DNA loci in felids and canids (Carnivora). Cytogenet. Cell Genet. 48: 214-219, 1988.
158. Modi, W. S., Fanning, T. G., Wayne, R. K., and O'Brien, S.J.: Chromosomal localization of satellite DNA sequences among 22 species of felids and canids (Carnivora). Cytogenet. Cell Genet. 48: 208-213, 1988.
159. Ruppert, J. M., Kinzler, K. W., Wong, A.J., Bigner, S. H., Kao, F. T., Law, M. L., Seuanez, H., O'Brien, S.J., and Vogelstein, B.: The GLI-Kruppel family of human genes. Mol. Cell. Biol. 8: 3104-3113, 1988.
160. Rao, V. N., Modi, W., Drabkin, H. D., Patterson, D., O'Brien, S.J., Papas, T.S., and Reddy, P.: The human erg gene maps to chromosome 21, band q22: relationship to the 8; 21 translocation of

- acute myelogenous leukemia. *Oncogene* 3: 497-500, 1988.
161. O'Brien, S.J., Seuanez, H. N., and Womack, J.E.: Mammalian genome organization: An evolutionary view. In Campbell, A. (Ed.): *Annual Review of Genetics*, Vol. 22. Palo Alto, Annual Reviews Inc., 1988, pp. 323-351.
- 162a. O'Brien, S.J.: Molecular biology and evolutionary theory: The giant panda's closest relatives. In Hecht, M. K. (Ed.): *Evolutionary Biology at the Crossroads: A Symposium at Queens College*. New York, Queens College, 1989, pp. 89-116.
- 162b. O'Brien, S.J., Benveniste, R. E., Nash, W. G., Martenson, J. S., Eichelberger, M. A., Wildt, D. E., Bush, M., Wayne, R. K., and Goldman, D.: Molecular biology and evolutionary theory: The giant panda's closest relatives. In Warren, L. and Koprowski, H. (Eds.): *New Perspectives on Evolution*, New York, Wiley-Liss, 1991, pp. 225-250.
163. Westerman, M., Janczewski, D.N., and O'Brien, S.J.: DNA-DNA hybridization studies and marsupial phylogeny. *Aust. J. Zool.* 37: 315-323, 1990.
164. Wayne, R. K., Meyer, A., Lehman, N., Van Valkenburgh, B., Kat, P. W., Fuller, T. K., Girman, D., and O'Brien, S.J.: Large sequence divergence among mitochondrial DNA genotypes within populations of eastern African black-backed jackals. *Proc. Natl. Acad. Sci. USA* 87: 1772-1776, 1990.
165. Weissman, A. M., Hou, D., Orloff, D. G., Modi, W. S., Seuanez, H., O'Brien, S.J., and Klausner, R. D.: Molecular cloning and chromosomal localization of the human T-cell receptor zeta chain: Distinction from the molecular CD3 complex. *Proc. Natl. Acad. Sci. USA* 85: 9709-9713, 1988.
166. Winkler, C., Schultz, A., Cevario, S., and O'Brien, S.J.: Genetic characterization of FLA, the cat major histocompatibility complex. *Proc. Natl. Acad. Sci. USA* 86: 943-947, 1989.
167. Wayne, R. K., Van Valkenburgh, B., Kat, P. W., Fuller, T. K., Johnson, W. E., and O'Brien, S.J.: Genetic and morphological divergence among sympatric canids. *J. Hered.* 80: 447-454, 1989.
168. Miyake, Y., O'Brien, S.J., and Kaneda, Y.: Regional localization of rDNA gene on pig chromosome 10 by *in situ* hybridization. *Nippon Juigaku Zasshi* 50: 341-345, 1988.
169. Evermann, J. F., Heeney, J. L., Roelke, M. E., McKeirnan, A. J., and O'Brien, S.J.: Biological and pathological consequences of feline infectious peritonitis virus infection in the cheetah. *Arch. Virol.* 102: 155-171, 1988.
170. O'Brien, S.J. and Graves, J. A. M.: Geneticists converge on divergent mammals: An overview of comparative mammalian genetics. *Aust. J. Zool.* 37: 147-154, 1990.
171. Giri, P.R., Krug, J. F., Kozak, C., Moretti, T., O'Brien, S.J., Seuanez, H. N., and Goldman, D.: Cloning and comparative mapping of a human class III (chi) alcohol dehydrogenase cDNA. *Biochem. Biophys. Res. Commun.* 164: 453-460, 1989.
172. O'Brien, S.J.: Barbara Kuhn. *J. Hered.* 79:491, 1988.
173. Rojko, J. L., Kociba, G. J., Abkowitz, J. L., Hamilton, K. L., Hardy, W. D. Jr., Ihle, J. N., and O'Brien, S.J.: Feline lymphomas: Immunological and cytochemical characterization. *Cancer Res.* 49:345-351, 1989.
174. Evermann, J. F., Heeney, J. L., McKeirnan, A. J., and O'Brien, S.J.: Comparative features of a

coronavirus isolated from a cheetah with feline infectious peritonitis. *Virus Res.* 13:15-27, 1989.

175. Heeney J. L., Evermann, J. F., McKeirnan, A. J., Marker-Kraus, L., Roelke, M. E., Bush, M., Wildt, D. E., Meltzer, D. G., Colly, L., Lucas, J., Manton, V. J., Caro, T., O'Brien, S.J.: Prevalence and implications of feline coronavirus infections of captive and free-ranging cheetahs (*Acinonyx jubatus*). *J. Virol.* 64: 1964-1972, 1990.
176. Gilbert, D. A., Reid, Y. A., Gail, M. H., Pee, D., White, C., Hay, R. J., and O'Brien, S.J.: Application of DNA fingerprints for cell-line individualization. *Am. J. Hum. Genet.* 47: 499-514, 1990.
177. Modi, W. S., Levine, M. A., Seuanez, H. N., Dean, M., and O'Brien, S.J.: The human chromogranin A gene: Chromosome assignment and RFLP analysis. *Am J Hum Genet* 45:814-818, 1989.
178. Lalley, P. A., Davisson, M. T., Graves, J. A. M., O'Brien, S.J., Roderick, T. H., Doolittle, D. P., and Hillyard, A. L.: Report of the committee on comparative mapping. *Human Gene Mapping 9.5: Update to the Ninth International Workshop on Human Gene Mapping*. *Cytogenet. Cell Genet.* 49:227-235, 1988.
179. Yuhki, N. and O'Brien, S.J.: DNA variation of the mammalian major histocompatibility complex reflects genomic diversity and population history. *Proc. Natl. Acad. Sci. USA* 87: 836-840, 1990.
180. Mann, D.L., O'Brien, S.J., Gilbert, D.A., Reid, Y., Popovic, M., Read-Connole, E., Gallo, R. C., and Gazdar, A. F.: Origin of the HIV-susceptible human CD4+ cell line H9. *AIDS Res. Hum. Retroviruses* 5: 253-255, 1989.
181. McGuire, E. A., Hockett, R. D., Pollock, K. M., Bartholdi, M. F., O'Brien, S.J., and Korsmeyer, S.J.: The t(11;14) (p15;q11) in a T-cell acute lymphoblastic leukemia cell line activates multiple transcripts including Ttg-1, a gene encoding a potential zinc finger protein. *Mol. Cell. Biol.* 9: 2124-2132, 1989.
182. Anagnou, N. P., Economou-Pachnis, A., O'Brien, S.J., Modi, W. S., Nienhuis, A. W., and Tsichlis, P. N.: The human homolog of the Moloney leukemia virus integration 2 locus (MLV12) maps to band p14 of chromosome 5. *Genomics* 5: 354-358, 1989.
183. Sack, G. H., Jr., Talbot, C. C., Seuanez, H., and O'Brien, S.J.: Molecular analysis of the human serum amyloid A (SAA) gene family. *Scand. J. Immunol.* 29: 113-119, 1989.
184. Gardner, M. B., Kozak, C., and O'Brien, S.J.: The Lake Casitas wild mouse: Evolving genetic resistance to retroviral disease. *Trends Genet.* 7: 22-27, 1991.
185. Mock, B., Kozak, C., Seldin, M. F., Ruff, N., D'Hoostelaere, L., Szpirer, C., Seuanez, H., O'Brien, S., and Banner, S.: A glutaminase (Gls) gene maps to mouse chromosome 1, rat chromosome 9 and human chromosome 2. *Genomics* 5: 291-297, 1989.
186. Hentze, M. W., Seuanez, H. N., O'Brien, S.J., Harford, J. B., and Klausner, R. D.: Chromosomal localization of nucleic acid-binding proteins by affinity mapping: Assignment of the IRE-binding protein gene to human chromosome 9. *Nucleic Acids Res.* 17:6103-6108, 1989.
187. Johnston, L. A., O'Brien, S.J., and Wildt, D. E.: In vitro maturation and fertilization of domestic cat follicular oocytes. *Gamete Res.* 24: 343-356, 1989.
188. Reeves, R. H., Gearhart, J. D., Hecht, N. B., Yellick, P., Johnson, P., and O'Brien S.J.: Mapping

- of PRM-1 to human chromosome 16 and tight linkage of Prm-1 and Prm-2 on mouse chromosome 16. *J. Hered.* 80: 442-446, 1989.
189. Winkler, C., Yuhki, N., and O'Brien, S.J.: Comparative analysis of FLA, the major histocompatibility complex in the Felidae. In Clegg, M. T., and O'Brien, S.J. (Eds.): *Molecular Evolution*. New York, Wiley, Liss, 1990, pp. 29-50.
190. Yuhki, N., Winkler, C., and O'Brien, S.J.: MHC genes of the domestic cat. In Srivastava, R., Ram, B. P., and Tyle, P. (Eds.): *Immunogenetics of the Major Histocompatibility Complex*. New York, VCH Publishers, 1991, pp. 348-367.
191. Lalley, P. A., Davisson, M. T., Graves, J. A. M., O'Brien, S.J., Womack, J. E., Roderick, T. H., Creau-Goldberg, N., Hillyard, A. L., Doolittle, D. P., and Rogers, J. A.: Report of the committee on comparative mapping. *Human Gene Mapping 10. Cytogenet. Cell Genet.* 51: 503-532, 1989.
192. Modi, W. S., Seuanez, H. N., Jaye, M., Haigler, H. J., Kaplan, R., and O'Brien, S.J.: The human endonexin II (ENX2) gene is located at 4q28----q32. *Cytogenet. Cell Genet.* 52:167-169, 1989.
193. Modi, W. S., Dean, M., Seuanez, H. N., Mukadia, N., Matsushima, K., and O'Brien, S. J.: Monocyte-derived neutrophil chemotactic factor (MDNCF/IL-8) resides in a gene cluster along with several other members of the platelet factor 4 gene superfamily. *Hum. Genet.* 84:185-187, 1990.
194. Baker, C. S., Palumbi, S. R., Lambertsen, R. H., Weinrich, M. T., Calambokidis, J., and O'Brien, S.J.: Influence of seasonal migration on geographic distribution of mitochondrial DNA haplotypes in humpback whales. *Nature* 344:238-240, 1990.
195. Janczewski, D. N., Goldman, D., and O'Brien, S.J.: Molecular genetic divergence of orang utan (*Pongo pygmaeus*) subspecies based on isozyme and two-dimensional gel electrophoresis. *J. Hered.* 81:375-387, 1990.
196. Wayne, R. K., Van Valkenburgh, B., and O'Brien, S.J.: Molecular distance and divergence time in carnivores and primates. *Mol. Biol. Evol.* 8: 297-319, 1991.
197. Yuhki, N. and O'Brien, S.J.: DNA recombination and natural selection pressure sustain genetic sequence diversity of the feline MHC class I genes. *J. Exp. Med.* 172: 621-630, 1990.
198. Halverson, D., Modi, W., Dean, M., Gelman, E. P., Dunn, K. J., Clanton, D., Oskarsson, M., O'Brien, S.J., and Blair, D. G.: An oncogenic chromosome 8-9 gene fusion isolated following transfection of human ovarian carcinoma cell line DNA. *Oncogene* 5: 1085-1089, 1990.
199. Bush, M., Graves, J. A. M., O'Brien, S.J., and Wildt, D. E.: Dissociative anaesthesia in free-ranging male koalas and selected marsupials in captivity. *Aust. Vet. J.* 67: 449-451, 1990.
200. Gilbert, D. A., Lehman, N., O'Brien, S.J., and Wayne, R. K.: Genetic fingerprinting reflects population differentiation in the California Channel Island fox. *Nature* 344: 764-767, 1990.
201. O'Brien, S.J., Roelke, M. E., Yuhki, N., Richards, K. W., Johnson, W. E., Franklin, W. L., Anderson, A. E., Bass, O. L. Jr., Belden, R. C., and Martenson, J. S.: Genetic introgression within the Florida panther *Felis concolor coryi*. *Natl. Geo. Res.* 6: 485-494, 1990.
202. Dionne, C. A., Kaplan, R., Seuanez, H., O'Brien, S.J., and Jaye, M.: Chromosome assignment by polymerase chain reaction techniques: Assignment of the oncogene FGF- to human chromosome 4. *Biotechniques* 8: 190-194, 1990.

203. Dean, M., Stewart, C., Perry, A., Gerrard, B., Beck, T., Rapp, U., Drumm, M., Iannuzzi, M., Collins, F., and O'Brien, S.J.: Genetic markers for oncogenes, growth factors, and cystic fibrosis. In Neth, R.D. et al., (Eds.): Modern Trends in Human Leukemia VIII. Heidelberg, Germany, Springer-Verlag, 1989, pp. 360-365.
204. Baker, C. S., Lambertsen, R. H., Weinrich, M. T., Calambokidis, J., Early, G., and O'Brien, S.J.: Molecular genetic identification of the sex of humpback whales (*Megaptera novaeangliae*). In Hoelzel, A. R. (Ed.): Genetic Ecology of Whales and Dolphins. Cambridge, International Whaling Committee, 1991, pp. 105-111.
205. Levine, M. A., Modi, W. S., and O'Brien, S.J.: Chromosomal localization of the genes encoding two forms of the G-protein beta polypeptide, beta 1 and beta 3, in man. *Genomics* 8: 380-386, 1990.
206. Brown, J. L., Bush, M., Packer, C., Pusey, A. E., Monfort, S. L., O'Brien, S.J., Janssen, D. L., and Wildt, D. E.: Developmental changes in pituitary-gonadal function in free-ranging lions (*Panthera leo leo*) of the Serengeti Plains and Ngorongoro Crater. *J. Reprod. Fertil.* 91: 29-40, 1991.
207. O'Brien, S.J.: Genetic map of the domestic cat, *Felis catus*. In O'Brien, S.J. (Ed.): *Genetic Maps: Locus Maps of Complex Genomes, Nonhuman Vertebrates*, Fifth Edition. New York, Cold Spring Harbor Laboratory, 1990, pp. 4.102-4.104.
208. O'Brien, S.J., and Johnson, P. A.: An abridged human map: Proto-oncogenes, endogenous retroviral sequences, cell surface receptors, growth factors, and lymphokines. In O'Brien, S.J. (Ed.): *Genetic Maps: Locus Maps of Complex Genomes, Human Maps*, Fifth Edition. New York, Cold Spring Harbor Laboratory, 1990, pp. 5.197-5.210.
209. Frolova, E. I., Dolganov, G. M., Mazo, I. A., Smirnov, D. V., Copeland, P., Stewart, C., O'Brien, S.J., and Dean, M.: Linkage mapping of the human CSF2 and IL3 genes. *Proc. Natl. Acad. Sci. USA* 88: 4821-4824, 1991.
210. O'Brien, S.J.: The genetic peril of the cheetah. In Seidensticker, J. (Ed.): *Great Cats: Majestic Creatures of the Wild*. Sydney, Australia, Weldon Owen Pty Ltd., 1991, p. 18.
211. O'Brien, S.J.: Molecular evolution of cats. In Seidensticker, J. (Ed.): *Great Cats: Majestic Creatures of the Wild*. Sydney, Australia, Weldon Owen Pty Ltd., 1991, p. 146.
212. Miththapala, S., Seidensticker, J., Phillips, L. G., Goodrowe, K. L., Fernando, S. B. U., Forman, L., and O'Brien, S.J.: Genetic variation in Sri Lankan leopards. *Zoo Biol.* 10: 139-146, 1991.
213. Goldman, D., O'Brien, S.J., Lucas-Derse, S., and Dean, M.: Linkage mapping of human polymorphic proteins identified by two-dimensional electrophoresis. *Genomics* 11: 875-884, 1991.
214. Johnston, L. A., Donoghue A. M., O'Brien, S.J., and Wildt, D. E.: Culture medium and protein supplementation influence in vitro fertilization and embryo development in the domestic cat. *J. Exp. Zool.* 257: 350-359, 1991.
215. Wildt, D. E., Bush, M., O'Brien, S.J., Murray, N. D., Taylor, A., and Graves, J. A. M.: Semen characteristics in free-living koalas (*Phascolarctos cinereus*). *J. Reprod. Fertil.* 92: 99-107, 1991.
216. Johnston, L. A., Donoghue, A. M., O'Brien, S.J., and Wildt, D. E.: Influence of temperature and

- gas atmosphere on in vitro fertilization and embryo development in domestic cats. *J. Reprod. Fertil.* 92: 377-382, 1991.
217. Packer, C., Pusey, A. E., Rowley, H., Gilbert, D. A., Martenson, J. S., and O'Brien, S.J.: Case study of a population bottleneck: Lions of the Ngorongoro Crater. *Conservation Biology* 5: 219-230, 1991.
218. Gilbert, D. A., Packer, C., Pusey, A. E., Stephens, J. C., and O'Brien, S.J.: Analytical DNA fingerprinting in lions: Parentage, genetic diversity, and kinship. *J. Hered.* 82: 378-386, 1991.
219. Packer, C., Gilbert, D. A., Pusey, A. E., and O'Brien, S.J.: Kinship, cooperation and inbreeding in African lions: A molecular genetic analysis. *Nature* 351: 562-565, 1991.
220. O'Brien, S.J. and Graves, J. A. M.: Report of the committee on comparative gene mapping. *Human Gene Mapping 10.5: Update to the Tenth International Workshop on Comparative Gene Mapping*. *Cytogenet. Cell Genet.* 55: 406-433, 1990.
221. Poduslo, S. E., Dean, M., Kolch, U., and O'Brien, S.J.: Detecting high-resolution polymorphisms in human coding loci by combining PCR and single-strand conformation polymorphism (SSCP) analysis. *Am. J. Hum. Genet.* 49: 106-111, 1991.
222. O'Brien, S.J. and Roelke, M. E.: What does geology have to do with panther conservation? *Natl. Geo. Res.* 7: 117-119, 1991.
223. O'Brien, S.J. and Mayr, E.: Bureaucratic mischief: Recognizing endangered species and subspecies. *Science* 251: 1187-1188, 1991.
224. O'Brien, S.J.: Mammalian genome mapping: Lessons and prospects. *Curr Opin Genet Dev* 1: 105-111, 1991.
225. Reid, Y. A., Gilbert, D. A., and O'Brien, S.J.: The use of DNA hypervariable probes for human cell line identification. *ATCC Quarterly* 10: 1-3, 1990.
226. Masuda, R., Yuhki, N., and O'Brien, S.J.: Molecular cloning, chromosomal assignment, and nucleotide sequence of the feline homeobox HOX3A. *Genomics* 11: 1007-1013, 1991.
227. Stephens, J. C., Gilbert, D. A., Yuhki, N., and O'Brien, S.J.: Estimation of heterozygosity for single-probe multilocus DNA fingerprints. *Mol. Biol. Evol.* 9: 729-743, 1992.
228. Miller, M. D., Wilson, S. D., Dorf, M. E., Seuanez, H. N., O'Brien, S.J., and Krangel, M. S.: Sequence and chromosomal location of the I-309 gene: Relationship to genes encoding a family of inflammatory cytokines. *J. Immunol.* 145: 2737-2744, 1990.
229. Levine, M. A., Modi, W. S., and O'Brien, S.J.: Mapping of the gene encoding the alpha subunit of the stimulatory G protein of adenylyl cyclase (GNAS1) to 20q13.2----q13.3 in human by in situ hybridization. *Genomics* 11: 478-479, 1991.
230. Johnston, L.A., Donoghue, A.M., O'Brien, S.J., and Wildt, D.E.: Rescue and maturation in vitro of follicular oocytes from nondomestic felid species. *Biol. Reprod.* 45: 898-906, 1991.
231. Dean, M., Lucas-Derse, S., Bolos, A., O'Brien, S.J., Kirkness, E. F., Fraser, C. M., and Goldman, D.: Genetic mapping of the beta 1 GABA receptor gene to human chromosome 4 using a tetranucleotide repeat polymorphism. *Am J Hum Genet* 49: 621-626, 1991.

232. O'Brien, S.J.: Genetic map of *Felis catus* (domestic cat). In O'Brien, S.J. (Ed.): *Genetic Maps: Locus Maps of Complex Genomes, Nonhuman Vertebrates*, Sixth Edition. New York, Cold Spring Harbor Laboratory, 1993, pp. 4.250-4.253.
233. O'Brien, S.J.: Establishing the ancestry of the red panda. In Stirling, I. (Ed.): *Bears*. Sydney, Australia, Weldon Owen Pty. Ltd., 1993, p. 30.
234. White, M.B., Carvalho, M., Derse, D., O'Brien, S.J., and Dean, M.: Detecting single base substitutions as heteroduplex polymorphisms. *Genomics* 12: 301-306, 1992.
235. Goldman, D. and O'Brien, S.J.: Two-dimensional protein electrophoresis in phylogenetic studies. *Meth. Enzymol.* 244:113-121, 1993.
236. Dionne, C. A., Modi, W. S., Crumley, G., O'Brien, S.J., Schlessinger, J., and Jaye, M.: BEK, a receptor for multiple members of the fibroblast growth factor (FGF) family, maps to human chromosome 10q25.3----10q26. *Cytogenet. Cell Genet.* 60: 34-36, 1992.
237. Baker, C.S., Gilbert, D.A., Weinrich, M.T., Lambertsen, R., Calmabokidis, J., McArdle, B., Chambers, G. K., and O'Brien, S.J.: Population characteristics of DNA fingerprints in humpback whales (*Megaptera novaeangliae*). *J. Hered.* 84: 281-290, 1993.
238. O'Brien, S.J.: Genetic erosion: A global dilemma. *Natl. Geogr.* 181: 136, 1992.
239. O'Brien, S.J.: Ghetto legacy. Can the high incidence of Tay-Sachs disease in Ashkenazi Jews be linked to historic epidemics of tuberculosis in industrial European cities? *Current Biology* 1: 209-211, 1991.
240. O'Brien, S.J.: Fuzzy thinking about the giant panda's ancestry. In Stirling, I. (Ed.): *Bears*. Sydney, Australia, Weldon Owen Pty. Ltd., 1993, pp. 34-35.
241. Janczewski, D. N., Yuhki, N., Gilbert, D. A., Jefferson, G. T., and O'Brien, S.J.: Molecular phylogenetic inference from saber-toothed cat fossils of Rancho La Brea. *Proc. Natl. Acad. Sci. USA* 89: 9769-9773, 1992.
242. Lautenberger, J. A., Burdett, L. A., Gunnell, M., Qi, S., Watson, D. K., O'Brien, S.J., and Papas, T. S.: Genomic dispersal of the ets gene family during metazoan evolution. *Oncogene* 7: 1713-1719, 1992.
243. O'Brien, S.J. and Graves, J. A. M.: Report of the committee on comparative gene mapping. *Human Gene Mapping* 11. *Cytogenet. Cell Genet.* 58: 1124-1151, 1991.
244. Hoelzel, A. R., Halley, J., O'Brien, S.J., Campagna, C., Arnbom, T., Le Boeuf, B., Ralls, K., and Dover, G. A.: Elephant seal genetic variation and the use of simulation models to investigate historical population bottlenecks. *J. Hered.* 84:443-449, 1993.
245. Olmsted, R. A., Langley, R., Roelke, M. E., Goeken, R. M., Adger-Johnson, D., Goff, J. P., Albert, J. P., Packer, C., Laurenson, M. K., Caro, T. M., Scheepers, L., Wildt, D. E., Bush, M., Martenson, J. S., and O'Brien, S.J.: Worldwide prevalence of lentivirus infection in wild feline species: Epidemiologic and phylogenetic aspects. *J. Virol.* 66: 6008-6018, 1992.
246. Jackson, C. E., Yuhki, N., Desnick, R. J., Haskins, M. E., O'Brien, S.J., and Schuchman, E. H.: Feline arylsulfatase B (ARSB): Isolation and expression of the cDNA, comparison with human ARSB, and gene localization to feline chromosome A1. *Genomics* 14: 403-411, 1992.

247. O'Brien S.J. and Mann, D. L.: Adaptive chaos and AIDS. *Current Biology* 2: 203-205, 1992.
248. O'Brien, S.J.: The molecular evolution of the bears. In Stirling, I. (Ed.): *Bears*. Sydney, Australia, Weldon Owen Pty. Ltd., 1993, pp. 26-33.
249. Kelley, M. J., Pech, M., Seuanez, H. N., Rubin, J. S., O'Brien, S.J., and Aaronson, S. A.: Emergence of the keratinocyte growth factor multigene family during the great ape radiation. *Proc. Natl. Acad. Sci. USA* 89: 9287-9291, 1992.
250. Donoghue, A. M., Johnston, L. A., Goodrowe, K. L., O'Brien, S.J. and Wildt, D. E.: Influence of day of estrous on egg viability and comparative efficiency of in vitro fertilization in domestic cats in natural or gonadotrophin-induced oestrus. *J. Reprod. Fertil.* 98: 85-90, 1993.
251. Menotti-Raymond, M. and O'Brien, S.J.: Dating the genetic bottleneck of the African cheetah. *Proc. Natl. Acad. Sci. USA* 90: 3172-3176, 1993.
252. O'Brien, S.J., Womack, J. E., Lyons, L. A., Moore, K. J., Jenkins, N. A., and Copeland, N. G.: Anchored reference loci for comparative genome mapping in mammals. *Nature Genet.* 3: 103-112, 1993.
253. Roelke, M. E., Martenson, J. S. and O'Brien, S.J.: The consequences of demographic reduction and genetic depletion in the endangered Florida panther. *Curr. Biol.* 3: 340-350, 1993.
254. Brown, E. W., Olmsted, R. A., Martenson, J. S., and O'Brien, S.J.: Exposure to FIV and FIPV in wild and captive cheetahs. *Zoo Biol.* 12: 135-142, 1993.
255. Briscoe, D., Stephens, J. C., and O'Brien, S.J.: Linkage disequilibrium in admixed populations: Applications in gene mapping. *J. Hered.* 85: 59-63, 1994.
256. Johnston, L. A., Donoghue, A. M., O'Brien, S.J., and Wildt, D. E.: Influence of culture medium on in vitro maturation and fertilization in the domestic cat. *Theriogenology* 80: 829-839, 1993.
257. Brown, E. W., Miththapala, S. and O'Brien, S.J.: Prevalence of exposure to feline immunodeficiency virus in exotic felid species. *J. Zoo Wildl. Med.* 24: 357-364, 1993.
258. Baker, C. S., Perry, A., Bannister, J. L., Weinrich, M. T., Abernethy, R. B., Calambokidis, J., Lien, J., Lambertsen, R. H., Urban Ramirez, J., Vasquez, O., Clapham, P. J., Alling, A., O'Brien, S.J., and Palumbi, S. R.: Abundant mitochondrial DNA variation and world-wide population structure in humpback whales. *Proc. Natl. Acad. Sci. USA* 90: 8239-8243, 1993.
259. O'Brien, S.J.: Molecular genetics and phylogenetics of the Felidae: Implications for conservation. In: *Cat Action Plan*. K. Nowell and P. Jackson (Eds). pp xxiii-xxiv. 1996.
260. O'Brien, S.J. and Mayr, E.: Species hybridization and protection of endangered animals. *Science* 253: 251-253, 1991.
261. Janczewski, D. N., Modi, W. S., Stephens, J. C., and O'Brien S.J.: Molecular evolution of mitochondrial 12S RNA and cytochrome b sequences in the Pantherine lineage of Felidae. *Mol. Biol. Evol.* 12: 690-707, 1995.
262. Yuhki, N. and O'Brien, S.J.: Exchanges of short polymorphic DNA segments predating speciation in feline major histocompatibility complex class I genes. *J Mol Evol* 39:22-33, 1994.
263. O'Brien, S.J., Peters, J., Searle, A., Womack, J., and Graves, J. A. M.: Report of the committee

on comparative gene mapping. Update to the Eleventh International Workshop on Human Gene Mapping. In Cutticchia, A. J., Pearson, P. L., Klinger, H. P. (Eds.): Genome Priority Reports: Chromosome Coordinating Meeting 1992, Vol. 1. Basel, Karger, 1993, pp. 758-809.

264. O'Brien, S.J.: When endangered species hybridize: The U.S. Hybrid Policy. In Meffe, G. K. and Carroll, C. R. (Eds.): An Introduction to Conservation Biology. Sunderland, Sinauer, 1994, pp. 69-70.
265. Marshall Graves, J. A., Wakefield, M. J., Peters, J., Searle, A. G., Womack, J. E., and O'Brien, S.J.: Report of the committee on comparative gene mapping. In Cutticchia, A. J. (Ed.): Human Gene Mapping, 1994: A Compendium. Baltimore, Johns Hopkins University Press, 1995, pp. 962-1016.
266. Lopez, J. V., Yuhki, N., Masuda, R., Modi, W. S., and O'Brien, S.J.: Numt, a recent transfer and tandem amplification of mitochondrial DNA to the nuclear genome of the domestic cat. *J. Mol. Evol.* 39:174-190, 1994.
267. Brown, J.L., Bush, M., Packer, C., Pusey, A.E., Monfort, S.L., O'Brien, S.J., Janssen, D.L., and Wildt, D. E.: Hormonal characteristics of free-ranging female lions (*Panthera leo*) of the Serengeti Plains and Ngorongoro Crater. *J. Reprod. Fertil.* 97: 107-114, 1993.
268. Glavac, D., Ravnik-Glavac, M., O'Brien, S.J., and Dean, M.: Polymorphisms in the 3' untranslated region of the I kappa B/MAD-3 (NFKBI) gene located on chromosome 14. *Hum. Genet.* 93: 694-696, 1994.
269. O'Brien, S.J.: The genomics generation. *Curr. Biol.* 3: 395-397, 1993.
270. Okuda, M., Umeda, A., Matsumoto, Y., Momoi, Y., Watari, T., Goitsuka, R., O'Brien, S.J., Tsujimoto, H., and Hasegawa, A.: Molecular cloning and chromosomal mapping of feline p53 tumor suppressor gene. *J. Vet. Med. Sci.* 55: 801-805, 1993.
271. Tsujimoto, H., Fulton, R., Nishigaki, K., Matsumoto, Y., Hasegawa, A., Cevario, S., O'Brien, S.J., Terry, A., Onions, D., and Neil, J. C.: A common proviral integration region, fit-1, in T-cell tumors induced by Myc-containing feline leukemia viruses. *Virology* 196: 845-848, 1993.
272. Seuanez, H. N., Alves, G., and O'Brien, S.J.: Genetic characterization of parental cell lines and biochemical analysis of somatic cell hybrids between mouse (RAG) cells and fibroblasts of *Ateles paniscus chamek* (Primates, Platyrrhini). *Am. J. Primatol.* 30: 181-194, 1993.
273. Langley, R. J., Hirsch, V. M., O'Brien, S.J., Adger-Johnson, D., Goeken, R. M., and Olmsted, R. A.: Nucleotide sequence analysis of puma lentivirus (PLV-14): Genomic organization and relationship to other lentiviruses. *Virology* 202: 853-864, 1994.
274. Pecon-Slattery, J., Johnson, W. E., Goldman, D., and O'Brien, S.J.: Phylogenetic reconstruction of South American felids defined by protein electrophoresis. *J. Mol. Evol.* 39: 296-305, 1994.
275. Miththapala, S., Seidensticker, J., and O'Brien, S.J.: Phylogeographic subspecies recognition in leopards (*Panthera pardus*): Molecular genetic variation. *Conserv. Biol.* 10: 1115-1132, 1996.
276. Anagnou, N. P., Seuanez, H., Modi, W., O'Brien, S.J., Papamatheakis, J., and Moschonas, N. K.: Chromosomal mapping of two members of the human glutamate dehydrogenase (GLUD) gene family to chromosomes 10q22.3-q23 and Xq22-q23. *Hum. Hered.* 43: 351-356, 1993.
277. O'Brien, S.J.: Perspective on conservation genetics. In Schierwater, B., Streit, B., Wagner, G. P.,

and DeSalle, R. (Eds.): Molecular Ecology and Evolution: Approaches and Applications. Basel, Birkhauser Verlag, 1994, pp. 275-280.

278. Koralnik, I. J., Boeri, E., Saxinger, W. C., Lo Monico, A., Fullen, J., Gessain, A., Guo, H.-G., Gallo, R. C., Markham, P., Kalyanaraman, V., Hirsch, V., Allan, J., Murthy, K., Alfords, P., Pecon Slattery, J., O'Brien, S.J., and Franchini, G.: Phylogenetic association of human and simian T-cell leukemia/lymphotropic virus type I isolates: Evidence for interspecies transmission. *J. Virol.* 68: 2693-2707, 1994.
279. O'Brien, S.J., Lu, Z., Knight, J., Qui, X., Mainka, S., and Pan, W.: Conservation genetics with respect to giant pandas. *Proc. Int. Giant Panda Conserv. Symp.* Cheng Du, China, pp. 112-115, 1994.
280. Stephens, J. C., Briscoe, D., and O'Brien, S.J.: Mapping by admixture linkage disequilibrium (MALD) in human populations: Limits and guidelines. *Am. J. Hum. Genet.* 55: 809-824, 1994.
281. Brown, E. W., Yuhki, N., Packer, C., and O'Brien, S.J.: A lion lentivirus related to feline immunodeficiency virus: Epidemiologic and phylogenetic aspects. *J Virol* 68:5953-5968, 1994.
282. O'Brien, S.J.: The big cats tell a new story about the endangered species. *Cosmos* 4:14-18, 1994.
283. O'Brien, S.J., Pan, W., and Lu, Z.: Pandas, people and policy. *Nature* 369: 179-180, 1994.
284. Hoelzel, A. R., Lopez, J. V., Dover, G. A., and O'Brien, S.J.: Rapid evolution of a heteroplasmic repetitive sequence in the mitochondrial DNA control region of carnivores. *J Mol Evol* 39: 191-199, 1994.
285. O'Brien, S.J. and Clegg, M. T.: Genomes and evolution. *Curr. Opin. Genet. Dev.* 3: 835-836, 1993.
286. O'Brien, S.J., Peters, J., Searle, A.G., Womack, J.E., Johnson, P.A., and Graves, J.A. M.: Comparative gene mapping committee report. In Cuticchia, A.J. and Pearson, P. L. (Eds.): *Human Gene Mapping, 1993: A Compendium*. Baltimore, Johns Hopkins University Press, 1994, pp. 846-892.
287. Pecon Slattery, J. and O'Brien, S.J.: Molecular phylogeny of the red panda (*Ailurus fulgens*). *J. Hered.* 86: 413-422, 1995.
288. Seuanez, H.N., Alves, G., and O'Brien, S.J.: Gene mapping in the spider monkey (*Ateles paniscus chamek*). *J. Hered.* 85: 466-473, 1994.
289. Jordan, K., O'Brien, S.J., Johnson, K.H., and O'Brien, T.D.: Assignment of islet amyloid polypeptide (IAPP) gene to feline chromosome B4 using the polymerase chain reaction technique on feline-rodent hybrid cell lines. *Vet. Pathol.* 32: 195-197, 1995.
290. Dean, M., Stephens, J. C., Winkler, C., Lomb, D. A., Ramsburg, M., Boaze, R., Stewart, C., Charbonneau, L., Goldman, D., Albaugh, B. J., Goedert, J. J., Beasley, R. P., Hwang, L.-Y., Buchbinder, S., Weedon, M., Johnson, P. A., Eichelberger, M., and O'Brien, S.J.: Polymorphic admixture typing in human ethnic populations. *Am. J. Hum. Genet.* 55: 788-808, 1994.
291. O'Brien, S.J., Martenson, J.S., Wildt, D.E., Bush, M., Winkler, C., Roelke, M.E., Marker-Kraus, L., and Grisham, J.: The cheetah legacy: Retrospective interpretations. *Proc. 50th Annual IUD Conference, Zoological Society, Dublin, Ireland.* October, 1995. pp. 37-55, 1995.

292. O'Brien, S.J.: A role for molecular genetics in biological conservation. *Proc. Natl. Acad. Sci. USA* 91:5748-5755, 1994.
293. O'Brien, S.J., Martenson, J.S., Miththapala, S., Janczewski, D.N., Pecon Slattery, J., Johnson, W.E., Gilbert, D.A., Roelke, M.E., Packer, C., Bush, M., and Wildt, D.E.: Conservation genetics of the Felidae. In Avise, J.C. and Hamrick, J.L. (Eds.): *Conservation Genetics: Case Histories from Nature*. New York, Chapman and Hall, pp. 50-74, 1996.
294. O'Brien, S.J.: The cheetah's conservation controversy. *Conservation Biology*. 8: 1153-1155, 1994.
295. Sundberg, J.P., Montali, R.J., Bush, M., Phillips, L.G., Jr., O'Brien, S.J., Jenson, A. B., Burk, R.D., and Van Ranst, M.: Papillomavirus-associated focal oral hyperplasia in wild and captive Asian lions (*Panthera leo persica*). *J. Zoo Wildl. Med.* 27: 61-70, 1996.
296. Lyons, L. A., Raymond, M. M., and O'Brien, S.J.: Comparative genomics: The next generation. *Animal Biotechnology* 5: 103-111, 1994.
297. Menotti-Raymond, M. A. and O'Brien, S.J.: Evolutionary conservation of ten microsatellite loci in four species of Felidae. *J. Hered.* 86: 319-322, 1995.
298. Waits, L. P., Sullivan, J., O'Brien, S.J., and Ward, R. H.: Rapid radiation events in the family Ursidae indicated by likelihood phylogenetic estimation from multiple fragments of mtDNA. *Mol. Phylogenet. Evol.* 13: 82-92, 1999.
299. Dratch, P.A., Roslund, W., Martenson, J.S., Greenwell, R., O'Brien, S.J., and Best, T.: Molecular genetic identification of the Mexican onza as a puma (*Felis concolor*). *Cryptozoology* 12: 42-49, 1993-1996.
300. O'Brien, S.J.: Genetic and phylogenetic analyses of endangered species. *Ann. Rev. Genet.* 28: 467-489, 1994.
301. Carpenter, M.A., O'Brien, S.J.: Coadaptation and immunodeficiency virus: Lessons from the Felidae. *Curr. Opin. Genet. Devel.* 5: 739-745, 1995.
302. Alexander, K.A., MacLachlan, N.J., Kat, P.W., House, C., O'Brien, S.J., Lerche, N. W., Sawyer, M., Frank, L.G., Holekamp, K., Smale, L., McNutt, J. W., Laurenson, M.K., Mills, M.G.L., and Osburn, B.I.: Evidence of natural bluetongue virus infection among African carnivores. *Am. J. Trop. Med. Hyg.* 51: 568-576, 1994.
303. Wienberg, J., Stanyon, R., Nash, W.G., O'Brien, P.C.M., Yang, F., O'Brien, S.J., and Ferguson-Smith, M.A.: Conservation of human vs. feline genome organization revealed by reciprocal chromosome painting. *Cytogenet. Cell Genet.* 77: 211-217, 1997.
304. Kaslow, R.A., Carrington, M., Apple, R., Park, L., Munoz, A., Saah, A.J., Goedert, J.J., Winkler, C., O'Brien, S.J., Rinaldo, C., Detels, R., Blattner, W., Phair, J., Erlich, H., and Mann, D.L.: Influence of combinations of human major histocompatibility complex genes on the course of HIV-1 infection. *Nature Med.* 2: 405-411, 1996.
305. Lopez, J.V., Cevario, S., and O'Brien, S.J.: Complete nucleotide sequence of the domestic cat (*Felis catus*) mitochondrial genome and a transposed mtDNA tandem repeat (Numt) in the nuclear genome. *Genomics* 33: 229-246, 1996.
306. Menotti-Raymond, M. and O'Brien, S.J.: Hypervariable genomic variation to reconstruct the

- natural history of populations: Lessons from the big cats. Electrophoresis 16: 1771-1774, 1995.
307. Lyons, L.A. and O'Brien, S.J.: Comparative gene mapping for the feline genome project. Strategies 9: 77-78, 1996.
308. Alexander, K.A., Kat, P.W., House, J., House, C., O'Brien, S.J., Laurenson, M.K., McNutt, J.W., and Osburn, B.I.: African horse sickness and African carnivores. Vet. Microbiol. 47: 133-140, 1995.
309. Johnson, W.E., Dratch, P.A., Martenson, J.S., and O'Brien, S.J.: Resolution of recent radiations within three evolutionary lineages of Felidae using mitochondrial restriction fragment length polymorphism variation. J. Mammal. Evol. 3: 97-120, 1996.
310. Roelke-Parker, M. E., Munson, L., Packer, C., Kock, R., Cleaveland, S., Carpenter, M., O'Brien, S.J., Pospichil, A., Hofmann-Lehmann, R., Lutz, H., Mwamengele, G. L. M., Mgasa, M. N., Machange, G. A., Summers, B. A., Appel, M. J. G.: A canine distemper virus epidemic in Serengeti lions (*Panthera leo*). Nature 379: 441-445, 1996.
311. Masuda, R., Lopez, J.V., Pecon Slattery, J., Yuhki, N., and O'Brien, S.J.: Molecular phylogeny of mitochondrial cytochrome b and 12S rRNA sequences in the Felidae: Ocelot and domestic cat lineages. Mol. Phylogenetic Evol. 6: 351-365, 1996.
312. Lu Zhi, Karish, W. B., Janczewski, D. N., Frazier-Taylor, H., Sajuthi, D., Gombek, F., Andau, M., Martenson, J.S., and O'Brien, S.J.: Genomic differentiation among natural populations of orang-utan (*Pongo pygmaeus*). Curr. Biol. 6: 1326-1336, 1996.
313. Johnson, W., Culver, M., Iriarte, J.A., Eizirik, E., Seymour, K.L., and O'Brien, S.J.: Tracking the evolution of the elusive Andean mountain cat (*Oreailurus jacobita*) from mitochondrial DNA. J. Hered. 89: 227-232, 1998.
314. O'Brien, S.J.: Genomic prospecting. Nature Med. 1: 742-744, 1995.
315. Lyons, L. A. and O'Brien, S.J.: Prospects for comparative genome analyses among mammals. In Gustafson, J. P. and Flavell, R. A. (Eds.): Genomes of Plants and Animals: 21st Stadler Genetics Symposium. New York, Plenum, 1996, pp. 115-125.
316. Taylor, A., Graves, J.M., Murray, N., O'Brien, S.J., Yuhki, N., and Sherwin, B.: Conservation genetics of the koala (*Phascolarctos cinereus*). low mitochondrial DNA variation amongst southern Australian populations. Genet. Res. 69: 25-33, 1997.
317. Johnson, W. and O'Brien, S.J.: Phylogenetic reconstruction of the Felidae using 16S rRNA and NADH-5 mitochondrial genes. J. Mol. Evol. 44(Suppl. 1): S98-S116, 1997.
318. Hofmann-Lehmann, R., Fehr, D., Grob, M., Elgizoli, M., Packer, C., Martenson, J. S., O'Brien, S.J., and Lutz, H.: Prevalence of antibodies to feline parvovirus, calicivirus, herpesvirus, coronavirus and immunodeficiency virus and of feline leukemia virus antigen and the interrelationship of these viral infections in free-ranging lions in East Africa. Clin. Diagn. Lab. Immunol. 3: 554-562, 1996.
319. Lopez, J.V., Culver, M., Stephens, J.C., Johnson, W.E., O'Brien, S.J.: Rates of nuclear and cytoplasmic mitochondrial DNA sequence divergence in mammals. Mol. Biol. Evol. 14: 277-286, 1997.
320. Carpenter, M.A., Brown, E.W., Culver, M., Johnson, W.E., Pecon-Slattery, J., Brousset, D., and

- O'Brien, S.J.: Genetic and phylogenetic divergence of feline immunodeficiency virus in the puma (*Puma concolor*). *J. Virol.* 70: 6682-6693, 1996.
321. Yuhki, N. and O'Brien, S.J.: Nature and origin of polymorphism in feline MHC class II DRA and DRB genes. *J. Immunol.* 158: 2822-2833, 1997.
322. Carpenter, M.A., Appel, M.J.G., Roelke-Parker, M.E., Munson, L., Hofer, H., East, M., and O'Brien, S.J.: Genetic characterization of canine distemper virus in Serengeti carnivores. *Vet. Immunol. Immunopathol.* 65: 259-266, 1998.
323. Hoelzel, A.R., Stephens, J.C., and O'Brien, S.J.: Molecular genetic diversity and evolution at the MHC DQB locus in four species of pinnipeds. *Mol. Biol. Evol.* 16: 611-618, 1999.
324. Carpenter, M.A., Brown, E.W., MacDonald, D.W., and O'Brien, S.J. Phylogeographic patterns of feline immunodeficiency virus genetic diversity in the domestic cat. *Virol.* 251: 234-243, 1998.
325. Comparative Genome Organization: First International Workshop, Fraser Island, Australia. *Mammalian Genome* 7: 717-734, 1996.
326. Lyons, L.A., Laughlin, T.F., Copeland, N.G., Jenkins, N.A., Womack, J.E., and O'Brien, S.J. Comparative anchor tagged sequences (CATS) for integrative mapping of mammal genomes. *Nature Genetics* .15: 47-56, 1997.
327. Hartl, D.L., Kafatos, F.C., and O'Brien, S.J.: Genomes and evolution editorial overview: Genome evolution comes of age. *Curr. Opin. Genet. Devel.* 5: 705-708, 1995.
328. Menotti-Raymond, M., David, V. A., Stephens, J. C., and O'Brien, S.J.: Genetic individualization of domestic cats using feline STR loci for forensic analysis. *J. Forensics Sci.* 42: 1039-1051, 1997.
329. Johnson, W. E., Shinyashiki, F., Menotti-Raymond, M., Driscoll, C., Leh, C., Sunquist, M., Johnston, L., Bush, M., Wildt, D., Yuhki, N., and O'Brien, S.J.: Molecular genetic characterization of two insular Asian cat species, Bornean bay cat and iriomote cat. In Wasser, S. P. (Ed.): *Evolutionary Theory and Processes: Modern Perspectives, Papers in Honor of Eviatar Nevo*. Netherlands, Kluwer Academic Publishers, 1999, pp. 223-248.
330. O'Brien, S.J. and Goedert, J. J.: HIV causes AIDS: Koch's postulates fulfilled. *Current Opin. Immunol.* 8: 613-618, 1996.
331. Giri, A., Slattery, J. P., Heneine, W., Gessain, A., Rivadeneira, E., Desrosiers, R. C., Rosen, L., Anthony, R., Pamungkas, J., Iskandriati, D., Richards, A. L., Herve, V., McClure, H., O'Brien, S.J., and Franchini, G.: The Tax gene sequences form two divergent monophyletic lineages corresponding to types I and II of simian and human T-cell leukemia/lymphotropic viruses. *Virology* 231: 96-104, 1997.
332. Shows, T. B., Alders, M., Bennett, S., Burbee, D., Cartwright, P., Chandrasekharappa, S., Cooper, P., Courseaux, A., Davies, C., Devignes, M.-D., Devilee, P., Elliott, R., Evanse, G., Fantes, J., Garner, H., Gaudray, P., Gerhard, D. S., Gessler, M., Higgins, M., Hummerich, H., James, M., Lagercrantz, J., Litt, M., Little, P., Mannens, M., Munroe, D., Nowak, N., O'Brien, S., Parker, N., Perlin, M., Reid, L., Richard, C., Sawicki, M., Swallow, D., Thakker, R., van Heyningen, E., Vorechovsky, I., Wadelius, C., Weber, B., and Zabel, B.: Report of the fifth international workshop on human chromosome 11 mapping (1996). *Cytogenet. Cell Genet.* 74: 1-56, 1996.

333. Dean, M., Carrington, M., Winkler, C., Huttley, G.A., Smith, M.W., Allikmets, R., Goedert, J.J., Buchbinder, S.P., Vittinghoff, E., Gomperts, E., Donfield, S., Vlahov, D., Kaslow, R., Saah, A., Rinaldo, C., Detels, R., HGDS, MACS, MHCS, SF City Cohort, ALIVE Study and O'Brien, S.J.: Genetic restriction of HIV-1 infection and progression to AIDS by a deletion allele of the CCR5 structural gene. *Science* 273: 1856-1862, 1996.
334. Menotti-Raymond, M.A., David, V.A., and O'Brien, S.J.: Pet cat hair implicates murder suspect. *Nature* 386: 774, 1997.
335. Packer, C., Altizer, S., Appel, M., Brown, E., Martenson, J., O'Brien, S.J., Roelke-Parker, M., Hofmann-Lehmann, R., and Lutz, H.: Viruses of the Serengeti: Patterns of infection and mortality in African lions. *J. Anim. Ecol.* 68: 1161-1178, 1999.
336. O'Brien, S.J.: The family line: The human-cat connection. *National Geographic Magazine* 191: 77-85, 1997.
337. VandeWoude, S., O'Brien, S.J., Langelier, K., Hardy, W.D., Slattery, J.P., Zuckerman, E. E., and Hoover, E.A.: Growth of lion and puma lentiviruses in domestic cat cells and comparisons with FIV. *Virology* 233: 185-192, 1997.
338. VandeWoude, S., O'Brien, S.J., and Hoover, E.A.: Infectivity of lion and puma lentiviruses for domestic cats. *J Gen. Virol.* 78: 795-800, 1997.
339. Zagury, D., Lachgar, A., Chams, V., Fall, L. S., Bernard, J., Zagury, J. F., Bizzini, B., Gringeri, A., Santagostino, E., Rappaport, J., Feldman, M., O'Brien, S.J., Burny, A., and Gallo, R. C.: C-C chemokines, pivotal in protection against HIV type 1 infection. *Proc. Natl. Acad. Sci. USA* 95:3857-3861, 1998.
340. O'Brien, S.J., Cevario, S.J., Martenson, J. S., Thompson, M. E., Nash, W. G., Chang, E., Graves, J. A. M., Spencer, J. A., Cho, K.-W., Tsujimoto, H., and Lyons, L. A.: Comparative gene mapping in the domestic cat (*Felis catus*). *J. Hered.* 88: 408-414, 1997.
341. O'Brien, S.J.: The HIV-AIDS debate is over. *HIV NEWSLINE* 3: 3-9, 1997.
342. O'Brien, S.J., Wienberg, J., and Lyons, L. A.: Comparative genomics: Lessons from cats. *Trends Genet.* 13: 393-399, 1997.
343. O'Brien, S.J. and Dean, M.: In search of AIDS-resistance genes. *Sci Amer* 277: 44-51, Sept. 1997.
344. O'Brien, S.J.: A genetic legacy of endangered species. In Speziale, B. J., Leonard, W. H., and Penick, J. E. (Eds.): *Biology: A Community Context Student Resource*. Cincinnati, South-Western Educational Publishing, pp. 144-147, 1999.
345. Okuda, M., Minehata, K., Setoguchi, A., Cho, K.-W., Nakamura, N., Nishigaki, K., Watari, T., Cevario, S., O'Brien, S.J., Tsujimoto, H., and Hasegawa, A.: Cloning and chromosomal mapping of the feline genes p21WAF1 and p27Kip1. *Gene* 198: 141-147, 1997.
346. Molia, S., Chomel, B.B., Kasten, R.W., Leutenegger, C.M., Steele, B.R., Marker, L., Martenson, J.S., Keet, D.F., Bengis, R.G., Peterson, R.P., Munson, L. and O'Brien, S.J.: Prevalence of *Bartonella* infection in wild African lions (*Panthera leo*) and cheetahs (*Acinonyx jubatus*). *Vet. Microbiol* 100:31-41, 2004.
347. O'Brien, T. R., Winkler, C., Dean, M., Nelson, J. A. E., Carrington, M., Michael, N. L., and

- White, G. C. II.: HIV-1 infection in a man homozygous for CCR5 $\Delta$ 32. *Lancet* 349: 1218, 1997.
348. An, Ping, Wei, L., Wu, X., Yuhki, N., O'Brien, S.J., and Winkler, C.: Evolutionary analysis of the 5' terminal region of hepatitis G virus isolated from different regions in China. *J. Gen. Virol.* 78: 2477-2482, 1997.
349. O'Brien, S.J.: Intersection of population genetics and species conservation: The cheetah's dilemma. In Hecht, M. K., MacIntyre, R. J., and Clegg, M. T. (Eds.): *Evolutionary Biology*. Volume 30. New York, Plenum Press, pp. 79-91, 1998.
350. Smith, M. W., Dean, M., Carrington, M., Winkler, C., Huttley, G. A., Lomb, D. A., Goedert, J. J., O'Brien, T. R., Jacobson, L. P., Kaslow, R., Buchbinder, S., Vittinghoff, E., Vlahov, D., Hoots, K., Hilgartner, M. W., Hemophilia Growth and Development Study, Multicenter AIDS Cohort Study, Multicenter Hemophilia Cohort Study, San Francisco City Cohort, ALIVE Study, and O'Brien, S.J.: Contrasting genetic influence of CCR2 and CCR5 variants on HIV-1 infection and disease progression. *Science* 277: 959-965, 1997.
351. Cho, K.-W., Satoh, H., Youn, H.-Y., Watari, T., Tsujimoto, H., O'Brien, S.J., and Hasegawa, A.: Assignment of the cat immunoglobulin heavy chain genes IGHM and IGHG to chromosome B3q26 and T cell receptor chain gene TCRG to A2q12-->q13 by fluorescence in situ hybridization. *Cytogenet. Cell Genet.* 79: 118-120, 1997.
352. Cho, K-W., Youn, H-Y, Okuda, M., Satoh, H., Cevario, S., O'Brien, S.J., Watari, T., Tsujimoto, H., and Hasegawa, A.: Cloning and mapping of cat (*Felis catus*) immunoglobulin and T-cell receptor genes. *Immunogenetics* 47: 226-233, 1998.
353. Saah, A. J., Hoover, D. R., Weng, S., Carrington, M., Mellors, J., Rinaldo, C. R., Mann, D., Apple, R., Phair, J. P., Detels, R., O'Brien, S.J., Enger, C., Johnson, P., and Kaslow, R. A. for the Multicenter AIDS Cohort Study (MACS). Association of HLA profiles with early plasma viral load, CD4+ cell count and rate of progression to AIDS following acute HIV-1 infection. *AIDS* 12: 2107-2113, 1998.
354. Pecon Slattery, J. and O'Brien, S.J.: Patterns of Y and X chromosome DNA sequence divergence during the Felidae radiation. *Genetics* 148: 1245-1255, 1998.
355. Wentzel, J., Stephens, J. C., Johnson, W., Menotti-Raymond, M., Pecon Slattery, J., Yuhki, N., Carrington, M., Quigley, H. B., Miquelle, D. G., Tilson, R., Manansang, J., Brady, G., Lu, Z., Pan, W., Shi-Qiang, H., Johnston, L., Sunquist, M., Karanth, K. U., and O'Brien, S.J.: Subspecies of tigers: Molecular assessment using Avoucher specimens@ of geographically traceable individuals. In Seidensticker, J., Christie, S. and Jackson, P. (Eds.): *Riding the Tiger: Tiger Conservation in Human-Dominated Landscapes*. Cambridge University Press, Cambridge, 1999, pp 40-49.
356. Caetano, A.R., Lyons, L.A., Laughlin, T.F., O'Brien, S.J., Murray, J.D., Bowling, A.T.: Equine synteny mapping of comparative anchor tagged sequences (CATS) from human Chromosome 5. *Mamm Genome*. 10:1082-1084, 1999
357. O'Brien, S.J.: Molecular Genetics and Phylogenetics of the Felidae. In: *Wild Cats: Status Survey and Conservation Action Plan*. (Nowell, K., and Jackson, P. Eds), IUCN, Gland, Switzerland. ppXXIII-XXIV, 1996.
358. Smith, M., Dean, M., Carrington, M., Huttley, G. A., and O'Brien, S.J.: CCR5 $\Delta$ 32 gene deletion in HIV-1 infected patients. *Lancet* 350: 741, 1997.

359. Huttley, G. A., Smith, M. W., Carrington, M., and O'Brien, S.J.: A scan for linkage disequilibrium across the human genome. *Genetics*. 152: 1711-1722, 1999.
360. Stephens, J. C., Reich, D. E., Goldstein, D. B., Shin, H. D., Smith, M. W., Carrington, M. A., Winkler, C., Huttley, G. A., Allikmets, R., Schriml, L., Gerrard, B., Malasky, M., Ramos, M. D., Morlot, S., Tzetis, M., Oddoux, C., di Giovine, F. S., Nasioulas, G., Chandler, D., Aseev, M., Hanson, M., Kalaydjieva, L., Glavac, D., Gasparini, P., Kanavakis, E., Claustres, M., Kambouris, M., Ostrer, H., Duff, G., Baranov, V., Sibul, H., Metspalu, A., Goldman, D., Martin, N., Duffy, D., Schmidtke, J., Estivill, X., O'Brien, S.J., and Dean, M.: Dating the origin of the CCR5-Δ32 AIDS resistance gene allele by the coalescence of haplotypes. *Am. J. Hum. Genet.* 62: 1507-1515, 1998.
361. Carrington, M., Kissner, T., Gerrard, B., Ivanov, S., O'Brien, S.J., and Dean, M.: Novel alleles of the chemokine-receptor gene CCR5. *Am. J. Hum. Genet.* 61: 1261-1267, 1997.
362. Winkler, C., Modi, W., Smith, M. W., Nelson, G. W., Wu, X., Carrington, M., Dean, M., Honjo, T., Tashiro, K., Yabe, D., Buchbinder, S., Vittinghoff, E., Goedert, J. J., O'Brien, T. R., Jacobson, L. P., Detels, R., Donfield, S., Willoughby, A., Gomperts, E., Vlahov, D., Phair, J., ALIVE Study, Hemophilia Growth and Development Study (HGDS), Multicenter AIDS Cohort Study (MACS), Multicenter Hemophilia Cohort Study (MHCS), San Francisco City Cohort (SFCC), and O'Brien, S.J.: Genetic restriction of AIDS pathogenesis by an SDF-1 chemokine gene variant. *Science* 279: 389-393, 1998.
363. An, P., Luo, H., Lu, T., O'Brien, S.J., and Winkler, C.: Genetic heterogeneity and molecular epidemiology of GB virus C/Hepatitis G virus in China. *J. Hum. Virol.* 3: 299-305, 2000.
364. O'Brien, T. R., Padian, N. S., Hodge, T., Goedert, J. J., O'Brien, S.J., and Carrington, M.: CCR-5 genotype and sexual transmission of HIV-1. *AIDS* 12: 444-445, 1998.
365. Nash, W. G., Wienberg, J., Ferguson-Smith, M. A., Menninger, J. C., and O'Brien, S.J.: Comparative genomics: Tracking chromosome evolution in the family Ursidae using reciprocal chromosome painting. *Cytogenet. Cell Genet.* 83: 182-192, 1998.
366. O'Brien, S.J.: Subspecies identification incorporating molecular genetics. In: Wild Cats: Status Survey and Conservation Action Plan. (Nowell, K., and Jackson, P. Eds), IUCN, Gland, Switzerland, pp 210-211, 1996.
367. Smith, M. W., Carrington, M., Winkler, C., Lomb, D., Dean, M., Huttley, G., and O'Brien, S.J.: CCR2 chemokine receptor and AIDS progression. *Nature Med.* 3: 1052-1053, 1997.
368. Nguyen, G. T., Carrington, M., Beeler, J. A., Dean, M., Aledort, L. M., Blatt, P. M., Cohen, A. R., DiMichele, D., Eyster, M. E., Kessler, C. M., Konkle, B., Leissinger, C., Luban, N., O'Brien, S.J., Goedert, J. J., and O'Brien, T. R.: Phenotypic expressions of CCR5-Δ32/Δ32 homozygosity. *J. Acquir. Immune Defic. Syndr.* 22: 75-82, 1999.
369. Michael, N.L., Nelson, J.A. E., KewalRamani, V.N., Chang, G., O'Brien, S.J., Mascola, J. R., Volsky, B., Louder, M., White, G.C., II: Littman, D.R., Swanstrom, R., and O'Brien, T.R.: Exclusive and persistent use of the entry co-receptor CXCR4 by human immunodeficiency virus type 1 from a subject homozygous for CCR5Δ32. *J. Virol.* 72: 6040-6047, 1998.
370. O'Brien, S.J.: A new approach to therapy. *HIV Newsline* 4: 3-6, 1998.
371. Beatty, J., Terry, A., MacDonald, J., Gault, E., Cevario, S., O'Brien, S.J., Cameron, E., and Neil, J.C.: Feline immunodeficiency virus integration in B-cell lymphoma identifies a candidate tumor

- suppressor gene on human chromosome 15q15. *Cancer Res.* 62: 7175-7180, 2002.
372. Anzala, A.O., Ball, T. B., Rostron, T., O'Brien, S.J., Plummer, F. A., and Rowland-Jones, S. L.: CCR2-64I allele and genotype association with delayed AIDS progression in African women. University of Nairobi Collaboration for HIV Research. *Lancet.* 351: 1632-1633, 1998.
373. Hendel, H., Caillat-Zucman, Lebuane, H., Carrington, M., O'Brien, S.J., Andrieu, J.-M., Schachter, F., Zagury, D., Rappaport, J., Winkler, C., Nelson, G. W., and Zagury, J.-F.: New class I and II HLA alleles strongly associated with opposite patterns of progression to AIDS. *J. Immunol.* 162: 6942-6946, 1999.
374. Eizirik, E., Bonatto, S. L., Johnson, W. E., Crawshaw, P. G., Jr., Vié, J. C., Broussset, D. M., O'Brien, S.J., and Salzano, F. M.: Phylogeographic patterns and evolution of the mitochondrial DNA control region in two neotropical cats (Mammalia, Felidae). *J. Mol. Evol.* 47: 613-624, 1998.
375. Lyons, L. A., Kehler, J. S., and O'Brien, S.J.: Development of comparative anchor tagged sequences (CATS) for canine genome mapping. *J. Hered.* 90: 15-26, 1999.
376. Miththapala, S., Seidensticker, J., Alvord, G., Klabansky, R., and O'Brien, S.J.: Phylogeographic Subspecies Recognition in Leopards (*Panthera pardus*): Molecular genetic variation. *Conserv Biol* 10:1115-1132, 1996.
377. Daar, E. S., Lynn, H., Donfield, S., Gomperts, E., Hilgartner, M. W., Hoots, K., Chernoff, D., Winkler, C., and O'Brien, S.J.: Effects of plasma HIV RNA, CD4+ T lymphocytes and the chemokine receptors CCR5 and CCR2b on HIV disease progression in hemo-philiacs. Hemophilia Growth and Development Study. *J. Aquir. Immune Defic. Syndr.* 21: 317-325, 1999.
378. Hendel, H., Henon, N., Lebuane, H., Lachgar, A., Poncelet, H., Caillat-Zucman, S., Winkler, C., Smith, M.W., Kenefic, L., O'Brien, S.J., Lu, W., Andrieu, J. M., Zagury, D., Schächter, F., Rappaport, J., and Zagury, J.-F.: Distinctive effects of CCR5, CCR2 and SDF1 genetic polymorphisms in AIDS progression. *J Acquir Immune Defic Syndr Hum Retrovirol* 19:381-386, 1998.
379. Martin, M. P., Dean, M., Smith, M. W., Gerrard, B., Michael, N. L., Lee, B., Doms, R.W., Margolick, J., Buchbinder, S., Goedert, J. J., O'Brien, T. R., Hilgartner, M. W., Vlahov, D., O'Brien, S.J., and Carrington, M.: Genetic acceleration of AIDS progression by a promoter variant of CCR5. *Science* 282: 1907-1911, 1998.
380. Smith, M., Dean, M., Carrington, M., Winkler, C., and O'Brien, S.J.: Progression to AIDS. *Science*. 280: 1819-1820, 1998.
381. Lee, B., Doranz, B. J., Rana, S., Yi, Y., Mellado, M., Frade, J. M. R., Martinez-A, C., O'Brien, S.J., Dean, M., Collman, R. G., and Doms, R. W.: Influence of the CCR2-V64I polymorphism on human immunodeficiency virus type 1 coreceptor activity and on chemokine receptor function of CCR2b, CCR3, CCR5, and CXCR4. *J. Virol.* 72: 7450-7458, 1998.
382. Johnson, W. E., Pecon Slattery, J., Eizirik, E., Kim, J.-H., Menotti-Raymond, M., Bonacic, C., Cambre, R., Crawshaw, P., Nunes, A., Seuanez, H., Moreira, M. A., Seymour, K. L., Simon, F., Swanson, W., and O'Brien, S.J.: Disparate phylogeographic patterns of molecular genetic variation in four closely related South American small cat species. *Mol. Ecol.* 8: S79-S94, 1999.
383. Carrington, M., Nelson, G., Martin, M. P., Kissner, T., Vlahov, D., Goedert, J. J., Kaslow, R., Buchbinder, S., Hoots, K., and O'Brien, S.J.: HLA and HIV-1: Heterozygote advantage and

B\*35-Cw\*04 disadvantage. *Science* 283: 1748-1752, 1999.

384. O'Brien, S.J.: AIDS: A role for host genes. *Hospital Practice* 33: 53-79, 1998.
385. Stephens, J. C., Smith, M. W., Shin, H. D., and O'Brien, S.J.: Tracking linkage disequilibrium in admixed populations with MALD using microsatellite loci. In Goldstein, D. B. and Schlötterer, C. (Eds.): *Microsatellites: Evolution and Applications*. Oxford, Oxford University Press, 1999, pp. 211-224.
386. Pecon Slattery, J., Sanner-Wachter, L., and O'Brien, S.J.: Novel gene conversion between X-Y homologues located in the nonrecombining region of the Y chromosome in Felidae (Mammalia). *Proc. Natl. Acad. Sci. USA.* 97: 5307-5312, 2000.
387. Martin, M. P., Carrington, M., Dean, M., O'Brien, S.J., Sheppard, H. W., Wegner, S. A., and Michael, N. L.: CXCR4 polymorphisms and HIV-1 pathogenesis. *J. AIDS.* 19: 430-432, 1998.
388. Thio, C. L., Carrington, M., Marti, D., O'Brien, S.J., Vlahov, D., Nelson, K. E., Astemborski, J., and Thomas, D. L.: Class II HLA alleles and hepatitis B virus persistence in African-American. *J. Infec. Dis.* 179: 1004-1006, 1999.
389. Su, B., Jin, L., Hu, F., Xiao, J., Luo, J., Lu, D., Zhang, W., Chu, J., Du, R., Zhencheng, Z., Qiu, X., Xue, J., Tan, J., O'Brien, S.J., and Chakraborty, R.: Distribution of two HIV-1 resistant polymorphisms (SDF1-3'A and CCR2-64I) in East Asia and world populations and its implication in AIDS epidemiology. *Am. J. Hum. Genet.* 65: 1047-1053, 1999.
390. Chen, Z-Q., Lautenberger, J. A., Lyons, L. A., McKenzie, L., and O'Brien, S.J.: A human genome map of comparative anchor tagged sequence. *J. Hered.* 90: 477-484, 1999.
391. Murphy, W. J., Menotti-Raymond, M., Lyons, L. A., Thompson, M. E., and O'Brien, S.J.: Development of a feline whole genome radiation hybrid panel and comparative mapping of human chromosome 12 and 22 loci. *Genomics.* 57: 1-8, 1999.
392. Menotti-Raymond, M., David, V. A., Lyons, L. A., Schäffer, A. A., Tomlin, J. F., Hutton, M. K., and O'Brien, S.J.: A genetic linkage map of microsatellites in the domestic cat (*Felis catus*). *Genomics.* 57: 9-23, 1999.
393. O'Brien, S.J. and Yuhki, N.: Comparative genome organization of the major histocompatibility complex: Lessons from the Felidae. *Immunol. Rev.* 167: 133-144, 1999.
394. Dean, M., Jacobson, L. P., McFarlane, G., Margolick, J. B., Jenkins, F. J., Howard, O. M. Z., Dong, H.-F., Goedert, J. J., Buchbinder, S., Gomperts, E., Vlahov, D., Oppenheim, J. J., O'Brien, S.J., and Carrington, M.: Reduced risk of AIDS lymphoma in individuals heterozygous for the CCR5 delta32 mutation. *Cancer Res.* 59: 3561-3564, 1999.
395. McKenzie, L. M., Slattery, J. P., Carrington, M., and O'Brien, S.J.: Taxonomic hierarchy of HLA class I allele sequences. *Genes Immun.* 1: 120-129, 1999.
396. Murphy, W. J., Stanyon, R., and O'Brien, S.J.: Evolution of mammalian genome organization inferred from comparative gene mapping. *Genome Biol.* 2: Reviews 0005.1-0005.8, 2001.
397. Greenough, T. C., Brettler, D. B., Kirchhoff, F., Alexander, L., Desrosiers, R. C., O'Brien, S.J., Somasundaran, M., Luzuriaga, K., and Sullivan, J. L.: Long-term nonprogressive infection with human immunodeficiency virus type 1 in a hemophilia cohort. *J. Infect. Dis.* 180: 1790-1802, 1999.

398. Bream, J. H., Young, H. A., Rice, N., Martin, M. P., Carrington, M., and O'Brien, S.J.: CCR5 promoter alleles and specific DNA binding factors. *Science*. 284: 223a, 1999.
399. Lautenberger, J. A., Stephens, J. C., O'Brien, S.J., and Smith, M. W.: Significant admixture linkage disequilibrium across 30 cM around the FY locus in African Americans. *Am. J. Hum. Genet.* 66: 969-978, 2000.
400. Shin, H. D., Winkler, C., Bream, J., Young, H., Phair, J., Goedert, J. J., Vlahov, D., Buchbinder, S., Donfield, S., O'Brien, S.J., and Smith, M. W.: Genetic restriction of HIV-1 pathogenesis to AIDS by promoter alleles of IL10. *Proc. Natl. Acad. Sci. USA*. 97: 14467-14472, 2000.
401. O'Brien, S.J., Dean, M., Smith, M. W., Winkler, C., Nelson, G. W., Martin, M. P., and Carrington, M.: The human genes that limit AIDS. In Boulyjenkov, V., Berg, K., and Christen, Y. (Eds.): *Genes and Resistance to Disease*. Heidelberg, Springer Verlag, 2000, pp. 9-17.
402. An, P., Martin, M. P., Nelson, G., Carrington, M., Smith, M. W., Gong, Q., Vlahov, D., Phair, J., O'Brien, T., Goedert, J., Buchbinder, S., O'Brien, S.J., and Winkler, C. A.: Influence of CCR5 promoter haplotypes on AIDS progression in African Americans. *AIDS* 14: 2117-2122, 2000.
403. Culver, M., Johnson, W. E., Pecon Slattery, J., and O'Brien, S.J.: Genomic ancestry of the American puma (*Puma concolor*). *J. Hered.* 91: 186-197, 2000.
404. Carrington, M., Dean, M., Martin, M. P., O'Brien, S.J.: Genetics of HIV-1 infection: chemokine receptor CCR5 polymorphism and its consequences. *Hum. Mol. Genet.* 8: 1939-1945, 1999.
405. Murphy, W. J., Sun, S., Chen, Z.-Q., Pecon Slattery, J., and O'Brien, S.J.: Extensive conservation of sex chromosome organization between cat and human revealed by parallel radiation hybrid mapping. *Genome Res.* 9: 1223-1230, 1999.
406. Caetano, A. R., Shiue, Y.-L., Lyons, L. A., O'Brien, S.J., Laughlin, T. F., Bowling, A. T., and Murray, J. D.: A comparative gene map of the horse (*Equus caballus*). *Genome Res.* 9: 1239-1249, 1999.
407. Driscoll, C. A., Menotti-Raymond, M., and O'Brien, S.J.: Genomic microsatellites as evolutionary chronometers: A test in wild cats. *Genome Res.* 12: 414-423, 2002.
408. Winkler, C. A. and O'Brien, S.J.: AIDS restriction genes in human ethnic groups: An assessment. In Essex, M., Mboup, S., Kanki, P. J., Marlink, R., and Tlou, S. D. (Eds.): *AIDS in Africa*, Second Edition, New York, Kluwer Academic. New York. pp. 52-73, 2002.
409. O'Brien, S.J. and Carrington, M.: Selection against susceptibility to HIV-1. *Science* 285: 11a, 1999.
410. O'Brien, S.J., Menotti-Raymond, M., Murphy, W. J., Nash, W. G., Wienberg, J., Stanyon, R., Copeland, N. G., Jenkins, N. A., Womack, J. E., and Marshall Graves, J. A.: The promise of comparative genomics in mammals. *Science* 286: 458-481, 1999.
- 410a. O'Brien, S.J., Eisenberg, J.F., Miyamoto, M., Hedges, S.B., Kumar, S., Wilson, D.E. Minotti-Raymond, M., Murphy, W.J., Nash, W.G., Lyons, L.A., Menninger, J.C., Stanyon, R., Wienberg, J., Copeland, N.G., Jenkins, N.A., Gellin, J., Yerle, J., Andersson, L., Womack, J., Broad, T., Postlethwait, J., Serov, O., Bailey E., James, M.R., Marshal Graves, J.A., et al. Genome Maps 10. Comparative genomics. Mammalian radiations. Wall chart. *Science* 286:463-478,1999.

411. Sheppard, H., Celum, C., Michael, N., O'Brien, S.J., Carrington, M., Dondero, D., Buchbinder, S.: HIV-1 infection in individuals with the CCR5-Δ32/Δ32 genotype: Acquisition of syncytium-inducing virus at seroconversion. *J. AIDS* 29:307-313, 2002.
412. Alexander, L., Weiskopf, E., Greenough, T. C., Gaddis, N. C., Auerbach, M. R., Malim, M. H., O'Brien, S.J., Walker, B. D., Sullivan, J. L., and Desrosiers, R. C.: Unusual polymorphisms in human immunodeficiency virus type 1 associated with nonprogressive infection. *J. Virol.* 74: 4361-4376, 2000.
413. Culver, M., Raymond, M. A., and O'Brien, S.J.: Patterns of size homoplasy at 10 microsatellite loci in pumas (*Puma concolor*). *Mol. Biol. Evol.* 18: 1151-1156, 2001.
414. Munson, L., Marker, L., Dubovi, E., Spencer, J.A., Evermann, J.F., and O'Brien, S.J.: Serosurvey of viral infections in free-ranging Namibian cheetahs (*Acinonyx jubatus*). *J. Wildlife Dis.* 40:23-31, 2004.
415. Martínez-Cruz, B. David, V.A., Godoy, J.A. Negro, J. J., O'Brien, S.J., Johnson, W.E. Eighteen polymorphic microsatellite markers for the highly endangered Spanish Imperial Eagle (*Aquila adalberti*) and related species. *Molecular Ecology* 2:323-326. 2002.
416. Murphy, W. J., Sun, S., Chen, Z.-Q., Yuhki, N., Hirschmann, D., Menotti-Raymond, M., and O'Brien, S.J.: A radiation hybrid map of the cat genome: Implications for comparative mapping. *Genome Res.* 10: 691-702, 2000.
417. O'Brien, S.J., Lander, E.S., Haskins, M., Giger, U., Pederson, N.C., Wildt, D., Murphy, W.J., Yuhki, N., and Menotti-Raymond, M. NHGRI White Paper, Sequencing the genome of the domestic cat, *Felis catus*.  
<http://www.genome.gov/Pages/Research/Sequencing/SeqProposals/CatSEQ.pdf>
418. Sarno, R. J., Franklin, W. L., O'Brien, S.J., and Johnson, W. E.: Patterns of mtDNA and microsatellite variation in an island and mainland population of guanacos in southern Chile. *Animal Conservation*. 4:93-101, 2001.
419. O'Brien, S.J.: Adaptive cycles: Parasites selectively reduce inbreeding in Soay sheep. *Trends Ecol. Evol.* 15: 7-9, 2000.
420. O'Brien, S.J. and Stanyon, R.: Phylogenomics: Ancestral primate viewed. *Nature*. 402: 365-366, 1999.
421. Pecon Slattery, J., Murphy, W. J., and O'Brien, S.J.: Patterns of diversity among SINE elements isolated from three Y-chromosome genes in carnivores. *Mol. Biol. Evol.* 17: 825-829, 2000.
422. O'Brien, S.J., Gallo, R., and Essex, M.: Remembering Takis Papas. *Cancer Res.* 60: Cover Legend, October 15, 2000.
423. Daar, E. S., Lynn, H., Donfield, S., Gomperts, E., O'Brien, S.J., Hilgartner, M. W., Hoots, W. K., Chernoff, D., Arkin, S., Wong, W.-Y., Winkler, C. A., and the Hemophilia Growth and Development Study: Hepatitis C virus load is associated with human immunodeficiency virus type 1 disease progression in hemophiliacs. *J. Infect. Dis.* 183: 589-595, 2001.
424. Kim, J.-H., Eizirik, E., O'Brien, S.J., and Johnson, W. E.: Structure and evolution of the mitochondrial DNA control region in the great cats (*Panthera*). *Mitochondrion*. 1:279-292, 2001.
425. Eizirik, E., Kim, J.-H., Menotti-Raymond, M., Crawshaw, P. G. Jr., O'Brien, S.J., and Johnson,

- W. E.: Phylogeography, population history and conservation genetics of jaguars (*Panthera onca*, Mammalia, Felidae). *Mol. Ecol.* 10:65-79, 2001.
426. Sun, S., Murphy, W. J., Menotti-Raymond, M., and O'Brien, S.J.: Integration of the feline radiation hybrid and linkage maps. *Mammalian Genome* 12: 436-441, 2001.
427. Lu, Z., Johnson, W. E., Menotti-Raymond, M., Yuhki, N., Martenson, J., Mainka, S., Shi-qiang, H., Zhihe, Z., Li, G., Pan, W., and O'Brien, S.J.: Patterns of genetic diversity in remaining giant panda populations. *Conservation Biol.* 15: 1596-1607, 2001.
428. Menotti-Raymond, M., David, V., Wachter, L., Yuhki, N. and O'Brien, S.J.: Quantitative polymerase chain reaction-based assay for estimating DNA yield extracted from domestic cat specimens. *Croat. Med. J.* 44: 327-331, 2003.
429. Chomel, B.B., Kikuchi, Y., Martenson, J.S., Roelke-Parker, M.E., Chang, C.C., Kasten, R.W., Foley, J.E. Laudre, J., Murphy, K., Swift, P.K., Kramer, V.L., and O'Brien, S.J.: Seroprevalence of *Bartonella* infection in American free-ranging and captive pumas (*Felis concolor*) and bobcats (*Lynx rufus*). *Vet Res.* 35:233-241, 2004.
430. O'Brien, S.J.: Human genetic factors that impact HIV infection and progression. Clinical Care Options for HIV Symposium. In Phair, J. P. and King, E. (Eds.): *Medscape HIV/AIDS Annual Update 2000*. New York, Medscape, pp. 19-28, 2000.
431. O'Brien, S.J. and Moore, J.: The effect of genetic variation in chemokines and their receptors on HIV transmission and progression to AIDS. *Immunol. Rev.* 177: 99-111, 2000.
432. O'Brien, S.J.: The Cat Family. In D. Macdonald, (ed.), *Encyclopedia of Mammals*. Oxford, Oxford University Press, 2001, pp. 8-9.
433. Yamashita, T. E., Phair, J. P., Munoz, A., Margolick, J. B., Detels, R., O'Brien, S.J., Mellors, J. W., Wolinsky, S., and Jacobson, L. P.: Immunologic and virologic response to highly active antiretroviral therapy in the Multicenter AIDS Cohort Study. *AIDS* 15:735-746, 2001.
434. Sarno, R.J., L. Villalba, C. Bonacic, B. Gonzalez, B. Zapata, D.W. MacDonald, S.J. O'Brien, and W. E. Johnson. Phylogeography and subspecies assessment of vicuñas in Chile and Bolivia utilizing mtDNA and microsatellite markers: implications for vicuña conservation and management. *Conservation Genet.* 5:89-102, 2004.
435. Modi, W.S., Goedert, J.J., Strathdee, S., Buchbinder, S., Detels, R., Donfield, S., O'Brien, S.J. and Winkler, C.: MCP-1-MCP-3-Eotaxin gene cluster influences HIV-1 transmission *AIDS* 17:2357-2365, 2003.
436. Uphyrkina, O., Johnson, W., Quigley, H., Miquelle, D., Marker, L., Bush, M., and O'Brien, S.J.: Phylogenetics, genome diversity and the origin of modern leopard, *Panthera pardus*. *Mol. Ecol.* 10:2617-2633, 2001.
437. Smith, M. W., Lautenberger, J. A., Shin, H. D., and O'Brien, S.J.: Markers for mapping by admixture linkage disequilibrium in African American and Hispanic populations. *Am. J. Hum. Genet.* 69:1080-1094, 2001.
438. Gao, X., Nelson, G. W., Karacki, P., Martin, M. P., Phair, J., Kaslow, R., Goedert, J. J., Buchbinder, S., Koots, K., Vlahov, D., O'Brien, S.J., and Carrington, M.: Effect of a single amino acid change in MHC class I molecules on the rate of progression to AIDS. *New Engl J Med* 344:1668-1675, 2001.

439. Roelke-Parker, M. E., Slattery, J.P., VandeWoude, S., and O'Brien, S.J. T-lymphocyte profiles in FIV infected wild lions and pumas reveal CD4 depletion. *J Wildlife Dis.* 42: 234-248, 2006.
440. O'Brien, S.J., Nelson, G. W., Winkler, C. A., and Smith, M. W.: Polygenic and multifactorial disease gene association in man: Lessons from AIDS. *Ann Rev Genet* 34: 563-591, 2000.
441. Beck, T. W., Menninger, J., Voight, G., Newmann, K., Nishigaki, Y., Nash, W. G., Stephens, R. M., Wang, Y., de Jong, P. J., O'Brien, S.J., and Yuhki, N.: Comparative feline genomics: BAC/PAC contig map of the major histocompatibility complex class II region. *Genomics* 71:282-295, 2001.
442. Comstock, K. E., Georgiadis, N., Pecon-Slattery, J., Roca, A. L., Ostrander, E. A., O'Brien, S.J., and Wasser, S. K.: Patterns of molecular genetic variation among African elephant populations. *Mol. Ecol.* 11: 2489-2498, 2002.
443. Roca, A. L., Georgiadis, N., Pecon-Slattery, J., and O'Brien, S.J.: Genetic evidence for two species of elephant in Africa. *Science* 293: 1473-1477, 2001.
444. Sarno, R. J., David, V. A., Franklin, W. L., O'Brien, S.J., and Johnson, W. E.: Development of microsatellite markers in the guanaco, *Lama guanicoe*: Utility for South American camelids. *Mol. Ecol.* 9: 1922-1924, 2000.
445. Vande Woude, S., Hageman, C. A., O'Brien, S.J., and Hoover, E. A.: Nonpathogenic lion and puma lentiviruses impart resistance to superinfection by virulent feline immunodeficiency virus. *J. Acquir Immune Defic Syndr* 29:1-10, 2002.
446. Roca, A., Slattery, J.P., and O'Brien, S.J.: Genomically intact endogenous feline leukemia viruses of recent origin. *J Virol.* 78: 4370-4375, 2004.
447. O'Brien, S.J.: Cell culture forensics. *Proc. Natl. Acad. Sci. USA* 98: 7656-7658, 2001.
448. Parker, J. S. L., Murphy, W. J., Wang, D., O'Brien, S.J., and Parrish, C. R.: Canine and feline parvoviruses can use the human or feline transferrin receptors to bind, enter and infect cells. *J. Virol.* 75: 3896-3902, 2001.
449. Johnson, W.E., Eizirik, E., Roelke-Parker, M., O'Brien, S.J.: Applications of genetic concepts and molecular methods to carnivore conservation. In: *Carnivore Conservation* (J. Gittleman, S. Funk, P. Macdonald, and R. Wayne, eds), Cambridge University Press Pp. 335-358, 2001.
450. Murphy, W. J., Eizirik, E., Johnson, W. E., Zhang, Y. P., Ryder, O. A., and O'Brien, S.J.: Molecular phylogenetics and the origins of placental mammals. *Nature*. 409: 614-618, 2001.
451. Eizirik, E., Murphy, W. J., and O'Brien, S.J.: Molecular dating and biogeography of the early placental mammal radiation. *J. Hered.* 92: 212-219, 2001.
452. An, P., Nelson, G. W., Wang, L., Donfield, S., Goedert, J. J., Phair, J., Vlahov, D., Buchbinder, S., Farrar, W. L., Modi, W., O'Brien, S.J. and Winkler, C. A.: Modulating influence on HIV/AIDS by interacting RANTES gene variants. *Proc Natl Acad Sci USA* 99:10002-10007, 2002
453. Carrington, M., Nelson, G., and O'Brien, S.J.: Review and Commentary: Considering genetic profiles in functional studies of immune responsiveness to HIV-1. *Immunol Lett* 79:131-140, 2001.

454. Thio, C. L., Thomas, D. L., Goedert, J. J., Vlahov, D., Nelson, K. E., Hilgartner, M. W., O'Brien, S.J., Karacki, P., Marti, D., Astemborski, J., and Carrington, M.: Racial differences in HLA-Class II associations with hepatitis C virus outcomes. *J. Infect. Dis.* 184: 16-21, 2001.
455. Nash, W. G., Menninger, J. C., Wienberg, J., Padilla-Nash, H. M., O'Brien, S.J.: The pattern of phylogenomic evolution of the Canidae. *Cytogenet. Cell Genet.* 95: 210-224, 2001.
456. O'Brien, S.J., Eizirik, E., and Murphy, W. J.: Genomics. On choosing mammalian genomes for sequencing. *Science.* 292: 2264-2266, 2001.
457. Yang, O.O., Boscardin, W.J., Matud, J., Hausner, M.A., Hultin, L.E., Hultin, P.M., Shih, R., Ferbas, J., Siegal, F.P., Shodell, M., Shearer, G.M., Grene, E., Carrington, M., O'Brien, S., Price, C.B., Detels, R., Jamieson, B.D., Giorgi, J.V.: Immunologic profile of highly exposed yet HIV type 1-seronegative men. *AIDS Res Hum Retroviruses.* 18:1051-1065, 2002.
458. Uphyrkina, O., Miquelle, D., Quigley, H., Driscoll, C., and O'Brien, S.J.: Conservation genetics of the far eastern leopard (*P. p. orientalis*). *J. Hered.* 93:303-311, 2002.
459. Johnson, W., O'Brien, S.J., and Culver, M.: Small Cats. In D. Macdonald, ed., *Encyclopedia of Mammals*. Oxford, Oxford University Press, 2001, pp. 32-34.
460. Dean, M., Carrington, M., O'Brien, S.J.: Balanced polymorphism selected by genetic versus infectious human disease. *Ann. Rev. Genomics Hum Genet* 3:263-292, 2002.
461. Menotti-Raymond, M., David, V. A., Chen, Z.-Q., Menotti, K., Sun, S., Schaffer, A. A., Agarwala, R., Tomlin, J. F., O'Brien, S.J. and Murphy, W. J.: Second-generation integrated genetic linkage/radiation hybrid maps of the domestic cat (*Felis catus*). *J. Hered.* 94: 95-106, 2003.
462. Yamaguchi, N., Sarno, R. J., Johnson, W. E., O'Brien, S.J., and Macdonald, D. W.: Multiple paternity and reproductive tactics of free-ranging American mink, *Mustela vison*. *J. Mammal.* 85: 432-439, 2004.
463. Palomares, F., Godoy, J. A., Piriz, A., O'Brien, S.J., and Johnson, W. E.: Faecal genetic analysis to determine presence and distribution of elusive carnivores: Design and feasibility for the Iberian lynx. *Mol. Ecol.* 11: 2171-2182, 2002.
464. Breen, E.C., Boscardin, W.J., Detels, R., Jacobson, L.P., Smith, M.W., O'Brien, S.J., Chmiel, J. S., Rinaldo, C.R., Lai, S., and Martínez-Maza, O. Non-Hodgkin's B cell - lymphoma in persons with acquired immunodeficiency syndrome is associated with increased serum levels of IL10, or the IL10 promoter -592 C/C genotype. *Clin. Immunol.* 109: 119-129, 2003.
465. Murphy, W. J., Eizirik, E., O'Brien, S.J., Madsen, O., Scally, M., Douady, C., Teeling, E., Ryder, O.A., Stanhope, M., de Jong, W. W., and Springer, M. S.: Resolution of the early placental mammal radiation using Bayesian phylogenetics. *Science* 294: 2348-2351, 2001.
466. Duggal, P., An, P., Beaty, T., Strathdee, S. A., Farzadegan, H., Markham, R. B., Johnson, L., O'Brien, S.J., Vlahov, D., and Winkler, C. A.: Genetic influence of CXCR6 chemokine receptor alleles on PCP-mediated AIDS progression among African-Americans. *Genes Immun.* 4: 245-250, 2003.
467. O'Brien, S.J., Gao, X., and Carrington, M.: HLA and AIDS: A cautionary tale. *Trends Mol. Med.* 7: 379-381, 2001.

468. Yuhki, N., Beck, T., Stephens, R. M., Nishigaki, Y., Newmann, K., and O'Brien, S.J.: Comparative genome organization of human, murine and feline MHC class II region. *Genome Res.* 13: 1169-1179, 2003.
469. Eizirik, E., Yuhki, N., Johnson, W., Menotti-Raymond, M., Hannah, S. S. and O'Brien, S.J. Molecular genetics and evolution of melanism in the cat family (Mamalia Felidae.). *Curr Biol.* 13: 448-453, 2003
470. Carrington, M., Gao, X., O'Brien, S.J.: HLA and AIDS progression. Letter to Editor, *New England Journal of Medicine* 345:924-925, 2001.
471. Martin, M.P., Gao, X., Lee, H.-L., Nelson, G., Detels, R., Goedert, J.J., Buchbinder, S., Hoots, K., Vlahov, D., Trowsdale, J., Wilson, M., O'Brien, S.J. and Carrington, M.: Epistatic interaction between KIR3DS1 and HLA-B delays the progression to AIDS. *Nature Genet.* 31: 429-434, 2002.
472. An, P., Vlahov, D., Margolick, J.B., Phair, J., O'Brien, T.R., Lautenberger, J., O'Brien, S.J. and Winkler, C.A.: A tumor necrosis factor-alpha-inducible promoter variant of interferon-gamma accelerates CD4+ T cell depletion in human immunodeficiency virus-1-infected individuals. *J Infect Dis.* 188:228-231, 2003.
473. Johnson, W.E., Godoy, J.A., Palomares, F., Delibes, M., Fernandes, M., Revilla, E., O'Brien, S.J.: Phylogenetic and phylogeographic analysis of Iberian lynx population. *J. Hered.* 95:19-28, 2004.
474. O'Brien, S.J.: Feline Genetics. *Encyclopedia of Genetics*. Academic Press, pp 684-685, 2001
475. Liu, C., Carrington, M., Kaslow, R., Rinaldo, C., Jacobson, L., Margolick, J., Phair, J., O'Brien, S.J., Detels, R.: Association of polymorphisms in HLA Class I and TAP genes with resistance to HIV-1 infection. *J Infect Dis* 187: 1404-1410, 2003.
476. O'Brien, S.J., Menotti-Raymond, M., Murphy, W.J., Yuhki, N. The Feline Genome Project. *Ann Rev Genetics* 36:657-686, 2002.
477. Copeland, N., Jenkins, N., O'Brien, S.J. Mmu 16- Comparative Genomic Highlights. *Science* 296: 1617-1618, 2002.
478. Beck, T., Menninger, J., Murphy, W.J., Nash, W.G., Yuhki, N., and O'Brien, S.J.: The feline major histocompatibility complex is rearranged by an inversion with a breakpoint in the distal class I region. *Immunogenetics* 56:702-709, 2005.
479. Murphy, W.J., Page, J.E., Smith, C. Jr., Desrosiers, R.C., and O'Brien, S.J.: A radiation hybrid mapping panel for the Rhesus macaque. *J. Hered.* 92: 516-519, 2001.
480. Springer, M.S., Murphy, W. J. Eizirik, E., O'Brien, S.J.: Placental mammal diversification and the Cretaceous-Tertiary boundary. *Proc. Nat. Acad. Sci. USA* 100:1056-1061, 2003.
481. David, V.A., Sun, S., Fujun, S., Zhihe, Z., Zhang, Y-P, Guiquan, Z., Hemin, Z., Zhong, X., Ellis, S. Wildt, D. S.J. O'Brien: Paternity analysis in captive bred giant pandas. In: *Giant Pandas: Biology, Veterinary and Management and Medicine*, (Wildt, D.E., Zhang, A., Zhang, H., and Janssen, D.L. and Ellis, S. Eds.), Cambridge University Press, England pp 245-273, 2003.
482. Eizirik, E., Murphy, W.J., Springer, M.S., O'Brien, S.J. Molecular phylogeny and dating of early

primate divergences. In: *Anthropoid Origins, New Visions*. Ross, C.F. and Kay, R.F. Eds., Kluwer/Plenum. pp 45-64, 2004.

483. Lento, G.M., Baker, C.S., David, V., Yuhki, N., Gales, N.J., O'Brien, S.J.: Automated single-strand conformation polymorphism reveals low diversity of a Major Histocompatibility Complex Class II gene in the threatened New Zealand sea lion. *Molec. Ecol.* 3: 346-349, 2003.
484. Carrington, M., O'Brien, S.J. The Influence of HLA Genotype on AIDS. *Ann. Rev. Med.* 54: 535-551, 2003.
485. Uphyrkina, O. and O'Brien, S.J.: Applying molecular genetic tools to the conservation and action plan for the critically endangered Far Eastern leopard (*Panthera pardus orientalis*). *C.R. Biologies* 326:S93-S97, 2003.
486. Jin, X., Gao, X., Ramanathan, M., Deschenes, G.R., Nelson, G., O'Brien, S.J., Goedert, J. J., Ho, D. D., O'Brien, T. R., Carrington, M.: Human immunodeficiency virus Type 1 (HIV-1)-specific CD8+T-cell responses for groups of HIV-1-infected individuals with different HLA-B\*35 genotypeS.J. *Virol.* 76: 12603-12610, 2002.
487. Butler, J. M., David, V. A., O'Brien, S.J., and Menotti-Raymond, M.: The "MeowPlex": A new DNA test using tetranucleotide STR markers for the domestic cat. *Profiles in DNA* 5:7-10, 2002.
488. Modi, W.S., O'Brien, T.R., Vlahov, D., Buchbinder, S., Gomperts, E., Phair, J., and O'Brien, S.J. and Winkler, C.: Haplotype diversity in the Interleukin-4 gene is not associated with HIV-1 transmission and AIDS progression. *Immunogenet* 55:157-164, 2003.
489. Kikuchi, Y., Chomel, B.B., Kasten, R.W., Martenson, J.S., Swift, P.K., and O'Brien, S.J.: Seroprevalence of *Toxoplasma gondii* in American free-ranging or captive pumas (*Felis concolor*) and bobcats (*Lynx rufus*). *Vet Parasitol* 120:1-9, 2004.
490. Pecon-Slattery, J., Pearks-Wilkerson, A.J., Murphy, W.J., and O'Brien, S.J.: Phylogenetic assessment of introns and SINEs within the Y-chromosome using the cat family Felidae as a species tree. *Mol Biol Evol* 21:2299-2309, 2004.
491. Murphy, W.J., Frönicke, L., O'Brien, S.J. and Stanyon, R.: The origin of human chromosome 1 and its homologs in placental mammals. *Genome Res.* 13: 1880-1888, 2003.
492. House, C., Alexander, K.A., Kat, P.W., O'Brien, S.J., Mangiafico, J.: Serum antibody to Rift Valley fever virus in African carnivores. *Ann N Y Acad Sci.* 1996 Jul 23;791:345-9.
493. Luo, S.-J., Kim, J.-H., Johnson, W.E., van der Walt, J., Martenson, J., Yuhki, N., Miquelle, D.G., Uphyrkina, O., Goodrich, J.M., Quigley, H.B., Tilson, R., Brady, G., Martelli, P., Subramaniam, V., McDougal, C., Hearn, S., Huang, S.-Q., Pan, W., Karanth, U.K., Sunquist, M., Smith, J.L.D., and O'Brien, S.J.: Phylogeography and genetic ancestry of tigers (*Panthera tigris*). *PLoS Biology* 2:2277-2293, 2004.
494. Troyer, J.L., Pecon-Slattery, J., Roelke Parker, M.E., Black, L., Packer, C., and O'Brien, S.J.: Patterns of feline immunodeficiency virus multiple infection and genome divergence in a free-ranging population of African lions. *J Virol.* 78: 3777-3791, 2004.
495. Nelson, G.W. and O'Brien, S.J.: Using mutual information to measure the impact of multiple genetic factors on AIDS. *J Acquir Immune Defic Syndr* 42: 347-354, 2006.
496. Thio, C.L., Mosbruger, T.L., Kaslow, R.A., Karp, C.L., Strathdee, S.A., Vlahov, D., O'Brien,

- S.J., Astemborski, J., and Thomas, D.L.: Cytotoxic T-lymphocyte antigen 4 gene and recovery from hepatitis B virus infection. *J Virol* 78:11258-11262, 2004
497. Kuznetsov, S., Matveeva, N.M., Murphy, W.J., O'Brien, S.J. and Serov, O.L.: Mapping of 53 loci in American mink (*Mustela vison*). *J. Hered.* 94:386-391, 2003.
498. Teeling, E.C., Madsen, O., Murphy, W.J., Springer, M.S., and O'Brien, S.J.: Nuclear gene sequences confirm an ancient link between New Zealand's short-tailed bat and South American noctilionoid bats. *Molec. Phylogenetic Evol.* 28: 308-319, 2003.
499. Swanson, W.F., Johnson, W.E., Cambre, R.C., Citino, S.B., Quigley, K.B., Brousset, D.M., Morais, R.N., Moreira, N., O'Brien, S.J. and Wildt, D.E.: Reproductive status of endemic felid species in Latin American zoos and implications for ex situ conservation. *Zoo Biol.* 0:1-21, 2003.
500. O'Brien, S.J. and Nelson, G.W.: Human genes that limit AIDS. *Nature Genetics*.36:565-574, 2004.
501. Daar, E. S., Lynn, H., Donfield, S., Lail, A., O'Brien, S.J., Huang, W., and Winkler, C.: Stromal cell-derived factor-1 genotype, coreceptor tropism, and HIV type 1 disease progression. *Journal of Infectious Diseases* 192:1597-1605, 2005.
502. Silverberg M.J., Smith, M.W. Chmiel, J.S., Detels, R., Margolick, J.B., Rinaldo, C.R., O'Brien, S.J., and Muñoz, A.: Fraction of cases of acquired immunodeficiency syndrome prevented by the interactions of identified restriction gene variants. *Am J Epidemiol.* 159: 232-241, 2004.
503. Murphy, W.J., Bourque, G., Tesler, G., Pevzner, P. and O'Brien, S.J.: Reconstructing the genomic architecture of mammalian ancestors using multispecies comparative maps. *Hum. Genomics.* 1: 30-40, 2003.
504. Roca, A.L., Georgiadis, N. and O'Brien, S.J.: African elephant genetics: request for samples. *Pachyderm.* 33:93-95, 2002.
505. He Q., Lowrie, C., Shelton, G.D., Castellani, R.J., Menotti-Raymond, M., Murphy, W., O'Brien, S.J., Swanson, W.F., Fyfe, J.C.: Inherited motor neuron disease in domestic cats: a model of spinal muscular atrophy. *Pediatr Res.* 57:324-30, 2005.
506. Thio, C.L., Thomas, D.L., Karacki, P., Gao, X., Marti, D., Kaslow, R.A., Goedert, J.J., Hilgartner, M., Strathdee, S., Duggal, P., O'Brien, S.J., Astemborski, J., and Carrington, M.: Comprehensive Analysis of Class I and Class II HLA Antigens and Chronic Hepatitis B Virus Infection. *J Virol.* 77:12083-12087, 2003.
507. Baker, C.S., Vant, M.D., Dalebout, M.L., Lento, G.M., O'Brien, S.J., Yuhki, N.: Diversity and duplication of DQB and DRB-like genes of the MHC in baleen whales (suborder: Mysticeti) *Immunogenetics* 58:283-296. 2006.
508. Roca, A.L., Georgiadis, N. and O'Brien, S.J.: Cytonuclear genomic dissociation in African elephant species. *Nature Genetics*.37:96-100, 2005.
509. Marker, L.L., Wilkerson, A.J., Sarno, R.J., Martenson, J., Breitenmoser-Wursten, C., O'Brien, S.J., and Johnson, W.E.: Molecular genetic insights on cheetah (*Acinonyx jubatus*) ecology and conservation in Namibia. *J Hered* 99: 2-13, 2008.
510. Thio, C.L., Gao, X., Goedert, J.J., Vlahov, D., Nelson, K.E., Hilgartner, M.W., O'Brien, S.J.,

- Karacki, P., Astemborski, J., Carrington, M., and Thomas, D.L.: HLA-Cw\*04 and Hepatitis C virus persistence. *J. Virol.* 76:4792-4797, 2002.
511. O'Brien, S.J. and Fraser, C.M.: Genomes and evolution. The power of comparative genomics. *Curr Opin Genet Dev* 15:569-571, 2005.
512. Johnson, W., Roelke, M., Palomares, F., Revilla, E., Calzada, Ferreras, P., Delibes, M. and O'Brien, S.J.: Seroprevalence of infectious disease agents in two populations of Iberian lynx. Submitted.
513. Oleksyk, T.K., Goldfarb, L.G., Sivtseva, T., Danilova, A.P., Osakovskiy, V.L., Shrestha, S., O'Brien, S.J., and Smith, M.W.: Evaluating association and transmission of eight inflammatory genes with Viliuisk encephalomyelitis susceptibility. *Eur J Immunogenet*, 31:121-128, 2004
514. Menotti-Raymond, M.A., David, V.A., Wachter, L.A., Butler, J.M., and O'Brien, S.J.: An STR forensic typing system for genetic individualization of domestic cat (*Felis catus*) Samples. *J Forensic Sciences* 50:1061-1070, 2005.
515. Nelson, G.W., An, P., Martin, M.P., O'Brien, T., Buchbinder, S., Phair, J., Vlahov, D., O'Brien, S.J. and Winkler, C.A.: Epistatic interaction between RANTES and CCR5 haplotypes strongly accelerates progression to AIDS. *Lancet* Submitted.
516. Roca, A.L., Nash, W.G., Menninger, J.C., Murphy, W.J., and O'Brien, S.J.: Insertional Polymorphisms of Endogenous Feline Leukemia Virus. *J. Virol.* 79: 3979-3986. 2005.
- 517.
518. Duggal, P., Winkler, C.A., An, P., Farzadegan, H., O'Brien, S.J., Beaty, T.H. and Vlahov, D.: The effect of RANTES chemokine genetic variations on initial HIV-1 plasma RNA among seroincident injection drug users (IUDs). *JAIDS* 38:584-589. 2005.
519. O'Brien, S.J. and Nelson, G.: AIDS restriction genes - a review. *Russian Journal of AIDS, Cancer and Public Health* 10: 42-57, YEAR
520. Dawson, L., Bateman-House, A.S. Mueller-Agnew, D., Bok, H., Brock, D.W., Chakravarti, A., Greene, M., King, P.A., O'Brien, S.J., Sachs, D.H., Schill, K.E., Siegel, A., Solter, D., Suter, S.M., Verfaillie, C.M., Walters, L.B., Gearhart, J.D., Faden, R.R.: Safety issues in cell-based intervention trials. *Fertil. Steril.* 80: 1077-1085. 2003. Erratum in: *Fertil Steril.* 81:226, 2004.
521. Pearks-Wilkerson, A.J., Teeling, E.C., Troyer, J.L., Bar-Gal, G.K., Roelke, M., Marker, L., Pecon-Slattery, J., O'Brien, S.J.: Coronavirus outbreak in cheetahs: Lessons for SARS. *Curr Biol.* 14: R227-R228. 2004.
522. O'Brien S.J and W J Murphy: A dog's breakfast? *Science* 301:1854-1855. 2003
523. Karacki, P.S., Gao Xiaojiang, Thio, C.L., Thomas, D.L., Goedert, J.J., Vlahov, D., Kaslow, R.A., Strathdee, S., Hilgartner, M.W., O'Brien, S.J., and Carrington, M: MICA and recovery from hepatitis C virus and hepatitis B virus infections. *Genes Immun.* 5:261-266, 2004.
524. Eizirik, E. and O'Brien, S.J.: Evolution of melanism in the felidae. *Cat News* 38:37-39. 2003.
525. Faden R.R., Dawson, L., Bateman-House, A.S., Agnew, M.D., Bok, H., Brock, D.W., Chakravarti, A., Gao, X-J., Greene, M., Hansen, J.A., King, P.A., O'Brien, S.J., Sachs, D.H., Schill, K.E., Siegel, A., Solter, D., Suter, S.M., Verfaillie, C.M., Walters, L.B. and Gearhart, J.D.:

Public stem cell banks: considerations of justice in stem cell research and therapy. Hastings Cent Rep 33:13-27, 2003.

526. Ballou, J.D., Miller, P.S., Zhong, X., Rongping, W., Hemin, Z., Anju, Z., Shiqiang, H., Shan, S., David, V., O'Brien, S.J., Seal, U.S., and Wildt, D.: Analyses of demographic and genetic trends for developing a captive breeding master plan for giant pandas. In: Giant Pandas: Biology, Veterinary and Management and Medicine, (Wildt, D.E., Zhang, A., Zhang, H., and Janssen, D.L. and Ellis, S. Eds.), Cambridge University Press, England, 2003.
527. Johnson, W.E., Eizirik, E., O'Brien, S.J.: Evolución y Genética de poblaciones de jaguar: implicaciones para los esfuerzos futuros de conservación. The Jaguar Book. Pp. 519-534. 2003.
528. Liu, C., Carrington, M., Kaslow, R.A., Gao, X., Rinaldo, C.R., Jacobson, L.P., Margolick, J.B., Phair, J., O'Brien, S.J., and Detels, R.: Lack of association between HLA Class II alleles and resistance to HIV-1 infection among white, non-Hispanic homosexual men. J Acquir Immune Defic Syndr. 37:1313-1317, 2004.
529. Menotti-Raymond, M., David, V.A., Agarwala, R., Schäffer, Stephens, R., O'Brien, S.J., Murphy, W.J.: Radiation hybrid mapping of 304 novel microsatellites in the domestic cat genome. Cytogenet Genome Res.:102: 272-276, 2003.
530. Winkler, C.A., Hendel, H., Carrington, M., Smith, M.W., Nelson, G.W., O'Brien, S.J., Phair, J., Vlahov, D., Rappaport, J., Haumont, P., Bertin-Maghit, S., Lu, W., Andrieu, J.-M., Schächter, F., Therwath, A. and Zagury, J.-F.: Early dominant effects of CCR2-CCR5 haplotypes in HIV-1 disease progression. J AIDS 37:1534-1538, 2004.
531. Springer, M. S., Murphy, W. J., Eizirik, E., and S.J. O'Brien. A molecular view on relationships among the extant orders of placental mammals. In: Molecular evidence for the rise of Placental Mammals, major placental clades (K.D. Rose & J.D. Archibald, eds.) The Johns Hopkins University Press, Baltimore, MD. 2004.
532. Roca, A.L., Kahila Bar-Gal, G., Eizirik, E., Helgen, K.M., Maria, R., Springer, M.S., O'Brien, S.J. and Murphy, W.J.: Mesozoic origin for West Indian insectivores. Nature 429:649-651. 2004.
533. Zhang, Zhi-He, Shen, Fu-Gun, Sun Shan, David, V.A., Zhang, An-Ju, O'Brien, S.J.: Paternity assignment of giant panda by microsatellite genotyping. Hereditas (Beijing) 25: 404-510. 2003.
534. Martin, M.P., Lederman, M., Hutcheson, H., Nelson, G.W., Goedert, J.J., Detels, R., Buchbinder, S., Hoots, K., Vlahov, D., O'Brien, S.J. and Carrington, M.: Association of DC SIGN promoter polymorphisms with increased risk for parenteral but not mucosal acquisition of HIV-1 infection. J Virol 78:14053-14056. 2004.
535. Winkler, C., An, P., and O'Brien, S.J.: Patterns of ethnic diversity among the genes that influence AIDS. Hum Mol Genet. 13: R9-R19. 2004.
536. Guo, X.C., O'Brien, S.J., Zeng, Y.: Impact of host genetic polymorphism on HIV/AIDS infection and progression. Chin Sci Bulletin 51:2705-2713, 2006.
537. Troyer, J., Pecon-Slattery, J., Roelke-Parker, M., Johnson, W., VandeWoude, S., Vazquez-Salat, Nuria, Brown, M., Frank, L., Woodroffe, R., Winterbach, C., Winterbach, H., Hemson, G., Bush, M., Alexander, K.A., Revilla, E., and O'Brien, S.J.: Seroprevalence and genomic diversity of circulating strains of feline immunodeficiency virus among Felidae and Hyaenidae species. J Virol. 79:8282-8294. 2005.

538. Smith, M.W., Patterson, N.J., Lautenberger, J.A., Truelove, A.L., McDonald, G.J., Waliszewska, A., Kessing, B.D., Kessing, B.D., Malasky, M.J., Scafe, C., Le, E., De Jager, P.L., Mignault, A.A., Yi, Z., de The, G., Essex, M., Sankale, J.-L., Moore, J.H., Poku, K., Phair, J.P., Goedert, J.J., Vlahov, Williams, S.M., Tishkoff, S.A., Winkler, C.A., De La Vega, F.M., Woodage, T., Sninsky, J.J., Hafler, D.A., Altshuler, D., Gilbert, D.A., O'Brien, S.J. and Reich, D.E.: A high density admixture map for disease gene discovery in African Americans. *Am. J. Hum. Genet.* 74: 1001-1013, 2004.
539. Patterson, N., Hattangadi, N., Lane, B., Lohmueller, K.E., Hafler, D.A., Oksenberg, J.R., Hauser, S.L., Smith, M., O'Brien, S.J., Altshuler, D., Daly, M., and Reich, D.: Methods for high density admixture mapping of disease genes. *Am. J. Hum. Gen.* 74: 979-1000, 2004.
540. An, P., Bleiber, G., Duggal, P., Nelson, G., May, M., Mangeat, B., Alobwede, I., Trono, D., Vlahov, D., Donfield, S., Goedert, J.J., Phair, J., Buchbinder, S., O'Brien, S.J., Telenti, A., and Winkler, C.A.: APOBEC3G genetic variants and their influence on the progression to AIDS. *J Virol* 78:11070-11076, 2004.
541. De La Vega, F.M., Isaac, H., Collins, A., Scafe, C.R., Halldórrsson, B.V., Su, X., Lippert, R.A., Wang, Y., Laig-Webster, M., Koehler, R.T., Ziegler, J.S., Wogan, L.T., Stevens, J.F., Leinen, K.M., Olson, S.J., Guegler, K.J., You, X., Xu, L.H., Hemken, H.G., Kalush, F., Itakura, M., O'Brien, S.J., Clark, A.G., Istrail, S., Hunkapiller, M.W., Spier, E.G., and Gilbert, D.A.: The linkage disequilibrium maps of three human chromosomes across four populations reflect their demographic history and a common underlying recombination pattern. *Genome Res* 15:454-462, 2005.
542. Khakoo, S.I., Thio, C.L., Martin, M.P., Brooks, C.R., Gao, X., Astemborski, J., Goedert, J.J., Vlahov, D., Hilgarten, M., Cox, S., Little, A.-M., Alexander, G.J., Cramp, M.E., O'Brien, S.J., Rosenberg, W.M.C., Thomas, D.L., and Carrington, M.: HLA and NK cell inhibitory receptor genes in resolving hepatitis C virus infection. *Science* 305:872-874, 2004.
543. Gao, X., Bashirova, A., Iversen, A.K.N., Phair, J., Goedert, J.J., Buchbinder, S., Hoots, K., Vlahov, D., Altfeld, M., O'Brien, S.J., and Carrington, M.: AIDS restriction HLA allotypes target distinct intervals of HIV-1 pathogenesis. *Nat Med.* 11: 1290-1292, 2006.
544. Nelson, G.W., An, P., Phair, H., Goedert, J.J., Vlahov, D., Buckbinder, S., Donfield, S., O'Brien, S.J. and Winkler, C.A.: Disentangling 3p21 AIDS association with bootstrapped multivariate survival analysis. Submitted..
545. Johnson, W.E., Eizirik, E., Murphy, W.J., Pecon-Slattery, J., Antunes, A., Teeling, E. and O'Brien, S.J.: The late Miocene radiation of modern felidae: A genetic assessment. *Science*.311:73-77. 2006.
546. King, V., Goodfellow, P., Pearks-Wilkerson, A.J., O'Brien, S.J., Pecon-Slattery, J.: Evolution of the male determining gene SRY and adjacent genomic flanks within the cat family Felidae. *Genetics* 175: 1855-1867, 2007.
547. Kim, J.-H., Antunes, A., Luo, S., Menninger, J., Nash, W.G., O'Brien, S.J., Johnson, W.E.: Evolutionary analysis of a large mtDNA translocation (numt) into the nuclear genome of the *Panthera* genus fields. *Gene* 366: 292-302, 2006.
- 548.
549. Murphy, W.J., Pevzner, P., O'Brien, S.J.: Mammalian phylogenetics comes of age. *Trends Genet* 20:631-639, 2004.

550. Thio, C.L., Goedert, J.J., Mosbruger, T., Vlahov, D., Strathdee, S.A., O'Brien, S.J., Astemborski, J., Thomas, D.L.: An analysis of tumor necrosis factor alpha gene polymorphisms and haplotypes with natural clearance of hepatitis C virus infection. *Genes Immun.* 5:294-300, 2004.
551. Vila, C., Leonard, J.A., Iriarte, A., O'Brien, S.J., Johnson, W.E., and Wayne, R.K.: Detecting the vanishing populations of the highly endangered Darwin's fox, *Pseudalopex fulvipes*. *Animal Conservation* 7:147-153, 2004.
552. Jones, J.W., Culver, M., David, V., Struthers, J., Johnson, N., Neves, R.J., O'Brien, S.J., and Hallerman, E.M.: Development and Characterization of Microsatellite Loci in the Endangered Oyster Mussel *Epioblasma capsaeformis* (Bivalvia:Unionidae) *Molecular Ecology Notes*, 10.1111/j.1471-8286, 2004.
553. Guo, X.-C., Scott, K., Yan, L., Dean, M., David, V., Nelson, G., Johnson, r., Dilks-Hutcheson, H., Lautenberger, J., Kessing, B., Martenson, J., Li, G., Shan, S., Hong, D., Yuming, Z., de The, G., Jian L., Zeng, Y., O'Brien, S.J., Winkler, C. A.: Genetic factors leading to chronic Epstein-Barr virus infection and nasopharyngeal carcinoma in South East China: Study design, methods and feasibility. *Human Genomics* 2: 365-375, 2006.
554. Thio, C.L., Mosbruger, T., Astemborski, J., Greer, S., Vlahov, D., O'Brien, S.J., and Thomas, D.L.: Mannose binding lectin genotypes influence recovery from hepatitis B virus infection. *J Virol* 79:9192-9196, 2005.
555. O'Brien, S.J.: Male Musings Book Review of "Adam's Curse: A future without men" by Bryan Sykes. *W. W. Norton & Company*, New York, 2004.  
[http://www.genomenewsnetwork.org/articles/2004/09/03/adams\\_curse.php](http://www.genomenewsnetwork.org/articles/2004/09/03/adams_curse.php)
556. Oleksyk, T.K., Thio, C.L., Truelove, A.L., Goedert, J.J., Donfield, S.M., Kirk, G.D., Thomas, D.L., O'Brien, S.J. and Smith, M.W.: Single nucleotide polymorphisms and haplotypes in the IL10 region associated with HCV clearance. *Genes and Immunity* 6:347-357, 2005.
557. Teeling, E., Springer, M.S., Madsen, O., Bates, P., O'Brien, S.J., and Murphy, W.J.: A molecular phylogeny for bats illuminates biogeography and the fossils record. *Science* 307:580-584, 2005.
558. Buckley-Beason, V.A., Johnson, W.E., Nash, W.G., Stanyon, R., Menninger, J.C., Driscoll, c.A., Howard, J., Bush, M., Page, J.E., Roelke, M.E., Stone, G., Martelli, P.P., Wen, C., Ling, L., Duraisingam, R.K., Lam, P.V. and O'Brien, S.J.: Molecular Evidence for Species-Level Distinctions in Clouded Leopards. *Curr Biol* 16:2371-2376, 2006.
559. O'Brien, S.J.: Cats. *Curr Biol*. 14:R988-R990, 2004.
560. O'Brien, S.J., and Johnson, W.: Big cat genomics. *Ann. Rev. Genomic and Human Genetics* 6:407-429, 2005.
561. Hendel, H., Winkler, C., An, P., Binns-Roemer, E., Nelson, G., Haumont, P., O'Brien, S.J., Khalilli, K., Zagury, D., Rappaport, J., and Zagury, J.-F.: Validation of Genetic Case-Control Studies in AIDS and Application to the CX3CR1 Polymorphism 26, 507-511, 2001.
562. Bashirova, A.A., Bleiber, G., Qi, Y., Hutcheson, H., Yamashita, T., Johnson, R.C., Cheng, J., Alter, G., Goedert, J., Buchbinder, S., Hoots, K., Vlahov, D., May, M., Maldarelli, F., Jacobson, L., O'Brien, S.J., Telenti, A., and Carrington, M.: Consistent effects of TSG101 genetic variability on multiple outcomes of exposure to human immunodeficiency virus type 1 *J. Virol.* 80:6757-6763. 2006

563. Vazquez-Salat, N., Yuhki, N., Beck, T., O'Brien, S.J., and Murphy, W.J.: Gene conservation between mammalian CCR2 and CCR5 chemokine receptor genes: A potential mechanism for receptor dimerization. *Genomics* 90:213-224, 2007.
564. Guo, X-C, O'Brien, S.J., Winkler, C., Scott, K., Hutcheson, H., David, V., Kessing, B., Zheng, Y-M., Liao, J., Lui, Y., de The, G., Zeng, Y.: Association study of chromosome 4 STRs polymorphisms with nasopharyngeal carcinoma. *Hereditas (Beijing)* 28: 783-790, 2006.
565. Smith, M.W., and O'Brien, S.J.: Mapping by Admixture Disequilibrium: Advances, Limits and Guidelines. *Nature Genetics Reviews*. 6: 623-632, 2005.
566. Murphy, W.J., Agarwala, R., Schaffer, A.A., Stephens, R., Smith, Jr., C., Crumpler, N.J., David, V.A., and O'Brien, S.J.: A rhesus macaque radiation hybrid map and comparative analysis with human genome. *Genomics* 86: 383-395, 2005.
567. Schmidt-Kuntzel, A., Eizirik, E., O'Brien, S.J., Menotti-Raymond, M.: Tyrosinase and tyrosinase related protein 1 alleles specify domestic cat coat color phenotypes of the albino and brown loci. *J Hered.* 2005 Jul-Aug;96(4):289-301. Epub 2005 Apr 27.
568. Shrestha, S., Stradthdee, S.A., Galai, N., Oleksyk, T., Fallin, D., Mehta, S., Schaid, D., Vlahov, D., O'Brien, S.J., and Smith, M.W.: Behavioral risk exposure and host genetics of susceptibility to HIV-1 infection. *J Infect Dis* 193: 16-26, 2006.
569. Murphy, W.J., Larkin, D.M., Everts-van de Wind, A., Bourque, G., Tesler, G., Auvil, L., Beever, J.E., Chowdhary, B.P., Galibert, F., Gatzke, L., Hitte, G., Meyers, S.N., Ostrander, A.E., Pape, G., Parker, H.G., Raudsepp, T., Rogatcheva, M.B., Schook, L.B., Skow, L.C., Welge, M., Womack, J.E., O'Brien, S.J., Pevzner, P.A., Lewin, H.A.: Dynamics of mammalian chromosome evolution inferred from multispecies comparative maps. *Science* 309:613-617, 2005.
570. O'Brien, S.J., Luo, S.-J., Kim, J.-H., and Johnson, W.E.: Molecular genetic analysis reveals six living subspecies of tiger, *Panthera tigris*. *Cat News* 42: 6-8.
571. Walsh, E.C., Sabeti, P., Hutcheson, H., Fry, B., Schaffner, S.F., de Bakker, P., Varilly, P., Roy, J., Cooper, R., Zeng, Y., Guo, Xiuchan, Lander, E.S., O'Brien, S.J., Altshuler, D.: Searching for signals of evolutionary selection in 168 genes related to immune function. *Hum Genet.* 199: 92-102, 2006.
572. Pereira, M.J.R., Rebelo, H., Teeling, E.C., O'Brien, S.J., New, T., Bu, S.S.H., Swe, KM., Mie, M.K., Bates, P.J.: Status of the world's smallest mammal, the bumble-bee bat *Crassonycteris thonglongyai*, in Myanmar. *ORYX* 40: 456-463, 2006.
573. Lind, J.M., Hutcheson, H.B., Williams, S.M., Moore, J.H., Essex, M., Ruiz-Pesini, E., Wallace, D.C., Tishkoff, S.A., O'Brien, S.J., and Smith, M.W.: Elevated male European and female African contributions to the genomes of African American individuals. *Hum Genet.* 120: 713-722, 2007.
574. Luo, S.J., Kim, J-H., Johnson, W. E., Miquelle, D. G., Huang, S-G., Pan W-S., Smith. J. L. D., O'Brien, S.J.: Proceedings in phyogeography and genetic ancestry of Tigers (*Panthera tigris*) in China and across the range. *Zoological Research* 27:441-448, 2006.
575. Sarno, R.J., Bonaciuc, C., Gonzalez, G., Zazpata, B., O'Brien, S.J., Johnson, W.E.: Capture and shearing of vicuñas vicugna for economic gain and its apparent social group disruption. *Molecular Ecology* In preparation.

576. Oleksyk, T.K., Zhao, K., Gilbert, D.A., de La Vega, F.M., O'Brien, S.J., Smith, M.W.: Identifying Selected Regions from Heterozygosity and Divergence Using a Light-Coverage Genomic Dataset from Two Human Populations. *PLoS ONE* 3:e1712, 2008.
577. Helgadottir, A., Manolescu, A., Helgason, A., Thorleifsson, G., Thorsteinsdottir, U., Gudbjartsson, D., Gretarsdottir, S., Magnusson, K.P., Gudmundsson, G., Hicks, A., Jonsson, T., Grant, S.F.A., Sainz, F., O'Brien, S.J., Sigurlaug Sveinbjornsdottir, S., Valdimarsson, E.M., Matthiasson, S.E., Levey, A.I., Thorgeirsson, G., Abrahamson, J., Reilly, M., Zafari, M., Wolfe, M., Gudnason, V., Quyyumi, A.A., Topol, E.J., Rader, D., Gulcher, J., Hakonarson, H., Kong, A., Stefansson, K.: A variant of the gene encoding Leukotriene A4 Hydrolase confers ethnic specific risk of myocardial infarction. *Nature Genetics* 38: 68-74, 2006.
578. Gao, X., Single, R.M., Karacki, P., Marti, D., O'Brien, S.J.: Diversity of MICA and linkage disequilibrium with HLA-B in two North American populations. *Human Immunol* 67: 152-158, 2006.
579. Perez-Gelabert, D.e., Roca, A.L., O'Brien, S.J., Menninger, J., Nash, W., Pontius, J., and Yuhki, N.: Chromosomal assignment and genomic analysis of endogenous retrovirus RD-114 indomestic and wild cats.
580. Roca, A.L., and O'Brien, S.J.: Genetic inferences from Afrotheria and the evolution of elephants. *Curr Opin Genet Dev* 15:652-659. 2005.
581. Modi, W.S., Scott, K., Goedert, J.J., Vlahov, D., Buchbinder, S., Detels, R., Donfield, S., O'Brien, S.J., and Winkler, C.: Haplotype analysis of the SDF-1 (CXCL12) gene in a longitudinal HIV-1/AIDS cohort study. *Genes and Immunity*.6:691-698, 2006.
582. Land, D., Johnson, W.E., Roelke-Parker, M., Cunningham, M., McBride, R., Jansen, D., Lotz, M., Shindle, D., Howard, J., Penfold, L., Wildt, D., and O'Brien, S.J.: Experimental genetic restoration of the Florida panther – an assessment. In preparation.
583. Sabeti, P.C., Walsh, E., Schaffner, S., Varilly, P., Fry, B., Cullen, M., Mikkelsen, T., Roy, J., Patterson, N., Cooper, R., Altshuler, D., and Lander, E.S.: The case for selection at CCR5Δ32. *PLoS Biol*.3:1963-1969, 2005.
584. Capelli, C., MacPhee, R.D.E., Roca, A.L., Brisighelli, F., Georgiadis, N., O'Brien, S.J., and Greenwood, A.D.: A nuclear DNA phylogeny of the woolly mammoth (*Mammuthus primigenius*). *Mol Phylogenetic Evol* 40: 620-627, 2006.
585. Springer, M.S., Burk-Herrick, A., Meredith, R., Eizirik, E., Teeling, E., O'Brien, S.J., Murphy, W.J.: The adequacy of morphology for reconstructing the early history of placental mammals. *Syst Biol*. 2007 Aug;56(4):673-84.
586. Fyfe, J.C., Menotti-Raymond, M., David, V.A., Brichta, L., Schröffer, A.A., Agarwala, R., Murphy, W.J., Wedemeyer, W.J., Gregory, B.L., Buzzell, B.G., Drummond, M.C., Wirth, B., O'Brien, S.J.: An approximately 140-kb deletion associated with feline spinal muscular atrophy implies an essential LIX1 function for motor neuron survival. *Genome Res*. 2006 Sep;16(9):1084-90. Epub 2006 Aug 9.
587. O'Brien, S.J.: The dog and its genome. *Nature* 438:740, 2005.
588. Welzel, T.M., Gao, X., Pfeiffer, R., Martin, M.P., O'Brien, S.J., Goedert, J.J., Carrington, M. and O'Brien, T.R.: HLA Bw4 alleles and HIV-1 transmission in heterosexual couples. *AIDS* 21: 225-

589. Napolitano, C., Bennett, M., Johnson, W.E., O'Brien, S.J., Marquet, P.A., Barria, I., Poulin, E., and Iriarte, A.: Ecological and biogeographical inferences on two sympatric and enigmatic Andean cat species using genetic identification of faecal samples. *Mol Ecol* 17: 678-690, 2008.
590. Hutcheson, H., Lautenberger, J., Nelson, G., Pontuis, J.J., Kessing, B.D., Smith, M.W., Johonson, R., Stephens, R., Phair, J., Goedert, J., Donfield, S., and O'Brien, S.J.: Detecting AIDS Restriction Genes: From Candidate Genes to Genome-Wide Association Discovery. *Vaccine* 26: 2951-2965, 2008.
591. Thio, C.L., Astemborski, J., Bashirova, A., Mosbruger, T., Greer, S., Witt, M.D., Goedert, J.J., Hilgartner, M., Majeske, A., O'Brien, S.J., Thomas, D.L., and Carrington, M.: Genetic protection against HBV conferred by CCR5Δ32: evidence that CCR5 contributes to viral persistence. *J Virol* 81:441-445, 2007.
592. O'Brien, S.J., Troyer, J., Roelke, M., Pecon-Slattery, J. and Marker, L.: Plagues and adaptations: Lessons from the Felidae modes for AIDS and SARS. *Biol Conserv* 131:255-267, 2006.
593. Nash, W.G., Menninger, J.C., Padilla-Nash, H. M. and O'Brien, S.J.: Ancestral carnivore karyotype (2n=38) lives today in ringtails. *J Hered* 99: 241-253, 2008.
594. Javanbakht, H., An, P., Gold, B., Petersen, D.C., O'hUigin,C., Nelson, G.W., O'Brien, S.J., Kirk, G.D., Detels, R., Buchbinder, S., Donfield, S., Shulennin, S., Song, B., Perron, J.J., Stremlau, M., Sodroski, J., Dean, M., and Winkler, C Effects of human TRIM5alpha polymorphisms on antiretroviral function and susceptibility to human immunodeficiency virus infection. *Virology* 354: 15-27, 2006
595. Qi, Y., Martin, M.P., Gao, X., Jacobson, L., Goedert, J.J., Buchbinder, S., Kirk, G.D., O'Brien, S.J., Trowsdale, J., and Carrington, fM.: KIR/HLA Pleiotropism: Protection against Both HIV and Opportunistic Infections. *PLoS Pathog.* 2:741-745-2006.
596. Antunes, A., Troyer, J.L., Roelke, M.E., Pecon-Slattery, J., Packer, C., Winterbach, C., Winterbach, H., Hemson, G., Frank, L., Stander, P., Siefert, L., Driciru, M., Funston, P.J., Alexander, K.A., Prager, K.C., Mills, G., Wildt, D., Bush, M., O'Brien, S.J., Johnson, W.E.: The evolutionary dynamics of the lion *Panthera leo* revealed by host and viral population genomics. *PLoS Genet.* 2008 Nov;4(11):e1000251. Epub 2008 Nov 7.
597. Ishida, Y., David, V.A., Eizirik, E., SchÃ¤ffer, A.A., Neelam, B.A., Roelke, M.E., Hannah, S.S., O'brien, S.J., Menotti-Raymond, M.: A homozygous single-base deletion in MLPH causes the dilute coat color phenotype in the domestic cat. *Genomics*. 2006 Dec;88(6):698-705.
598. Modi, W.S., Lautenberger, J., Scott, K., Ping, A., Goedert, J.J., Kurt, G.D., Buchbinder, J., Donfield, S., O'Brien, S.J., and Winkler, C.: Genetic variation in the CCL18 – CCL3 – CCL4 chemokine gene cluster influences HIV-1 transmission and AIDS disease progression. *Am J Hum Genet* 79:120-128. 2006.
599. Perelman, P.L., Graphodatsky, A.S., Dragoo, J.W., Serdyukova, N.A., Stone, G., Cavagna, P., Menotti, A., Nie, W., O'Brien, P.C., Wang, J., Burkett, S., Yuki, K., Roelke, M.E., O'Brien, S.J., Yang, F., Stanyon, R.: Chromosome painting shows that skunks (Mephitidae, Carnivora) have highly rearranged karyotypes. *Chromosome Res.* 2008;16(8):1215-31. Epub 2008 Nov 25.
600. O'Brien, S.J. and Johnson, W.E.: The evolution of cats. Genomic paw prints in the DNA of the world's wild cats have clarified the cat family tree and uncovered several remarkable migrations

in their past. *Sci Am* 297:68-75, 2007.

601. Pontius, J. U., Mullikin, J. C., Smith, D., Lindblad-Toh, K., Gnerre, S., Clamp, M., Stephens, R., Neelam, B., Volfovsky, N., Schäffer, A. A., Agarwala, R., Narfström K., Murphy, W. J., Giger, U., Roca, A. L., O'hUigin, C., Antunes, A., Menotti-Raymond, M., Yuhki, N., Pecon-Slattery, J., Johnson, W. E., Driscoll, C. and O'Brien, S.J.: Initial sequence and comparative analysis of the cat genome. *Genome Research* 11: 1675-1689, 2007.
602. Driscoll, C.A., Menotti-Raymond, M., Roca, A.L., Hupe, K., Johnson, W.E., Geffen, E., Harley, E.H., Delibes, M., Pontier, D., Kitchener, A.C., Yamaguchi, N., O'brien, S.J., Macdonald, D.W.: The Near Eastern origin of cat domestication. *Science*. 2007 Jul 27;317(5837):519-23.
603. Menotti-Raymond, M., David, V.A., Schäffer, A.A., Stephens, R., Wells, D., Kumar-Singh, R., O'Brien, S.J., Narfström, K.: Mutation in CEP290 discovered for cat model of human retinal degeneration. *J Hered*. 2007 May-Jun;98(3):211-20. Epub 2007 May 16.
604. Murphy, W.J., Davis, B., David, V.A., Agarwala, R., Schäffer, A.A., Pearks Wilkerson, A.J., Neelam, B., O'Brien, S.J., Menotti-Raymond, M.: A 1.5-Mb-resolution radiation hybrid map of the cat genome and comparative analysis with the canine and human genomes. *Genomics*. 2007 Feb;89(2):189-96. Epub 2006 Sep 25.
605. Martin, M. P., Qi, Y., Gao, X-J., Brown, E. E., Phair, J., Goedert, J. J., Buchbinder, S., Kirk, G. D., O'Brien, S.J., Parham, P., McVica. E. W., Carrington, M.: Innate partnership of HLA-B and KIR3DL1 subtypes against HIV-1. *Nat Genet* 39:733-740, 2007.
606. Truelove, A. L., Oleksyk, T. K., Shrestha, S., Thio, C. L., Goedert, J. J., Donfield, S. M., Kirk, G.D., Thomas, D. L., O'Brien, S.J., and Smith, M. W.: Evaluation of IL10, IL19 and IL20 gene polymorphisms and chronic hepatitis B infection outcome. *Int J Immunogenet* 35:255-264, 2008.
607. Luo, S-J., Cai, Q-X., David, V. A., Zhang, Li., Martelli, P., Lim, N. T-L., Ferrand, N., Chin, S-C., Guabert, P., Ramos, M., J., O'Brien, S.J., Antunes, A., Johnson, W. E.: Isolation and characterization of microsatellite markers in pangolias (mammalia, Pholidota, Manis spp). *Mol Ecol Notes* 7:269-272, 2007.
608. Menotti-Raymond, M., O'Brien, S.J.: The domestic cat, *Felis catus*, as a model of hereditary and infectious disease. In: *Source Book for Models for Biomedical Research*. Michael Conn ed. Humana Press Inc., Totawa, NJ. pp 221-232. 2008.
609. Bar-Gal, G.K., Kessing, B., Pecon-Slattery, J., Tetu, S., VandeWoude, S., Hoover, E. and O'Brien, S.J.: Phylo-diversity of feline immunodeficiency virus (FIV) in domestic cats. In preparation.
610. An., P., Duggal, P., Wang, L.H., O'Brien, S.J., Donfield, S., Goedert, J.J., Phair, J., Buchbinder, S., Kirk, G.D., and Winker, C.A.: Polymorphisms of CUL5 area ssociated with CD4+ T cell loss in HIV-1 infected individuals. *PLoS Genetics* 3: e19, 2007.
611. O'Brien, S.J, An interview with. Q&A. *Curr Biol*. 17: R152-R154, 2007.
612. Menotti-Raymond, M., David, V.A., Pflueger, S.M., Lindblad-Toh, K., Wade, C.M., O'Brien, S.J., Johnson, W.E.: Patterns of molecular genetic variation among cat breeds. *Genomics*. 2008 Jan;91(1):1-11. Epub 2007 Oct 25.
613. Kehler, J.S., David, V.A., Schäffer, A.A., Eizirik, E., Ryugo, D.K., Hannah, S.S., O'Brien, S.J., Menotti-Raymond, M. Four independent mutations in the feline fibroblast growth factor 5 gene

- determine the long-haired phenotype in domestic cats. *J Hered.* 98:555-66, 2007.
614. Miller-Butterworth, C.M., Murphy, W.J., O'Brien, S.J., Jacobs, D.S., Springer, M.S., and Teeling, E.C.: A family matter: conclusive resolution of the taxonomic position of the long-fingered bats, *miniopterus*. *Mol Biol Evol* 24:1553-1561, 2007.
615. Luo, S.J., Johnson, W.E., David, V.A., Menotti-Raymond, M., Stanyon, R., Cai, Q.X., Beck, T., Yuhki, N., Pecon-Slattery, J., Smith, J.L., O'Brien, S.J.: Development of Y chromosome intraspecific polymorphic markers in the Felidae. *J Hered.* 2007;98(5):400-13. Epub 2007 Jul 23.
616. An, P. Wang, L.H., Hutcheson, H., Nelson, G., O'Brien, S.J., Donfield, S., Goedert, J.J., Phair, J., Buchbinder, S., Kirk, G.D., and Winkler, C.A.: Regulatory polymorphisms in the Cyclophilin A gene, *PPIA* accelerate progression to AIDS. *PLoS Pathogens* 3:849-857, 2007.
617. Yuhki, N., Beck, T., Stephens, R., Neelam, B., and O'Brien, S.J.: Comparative genomic structure of human, dog, cat MHC: -HLA, DLA, and FLA-. *J Hered* 98:390-399, 2007.
618. Antunes, A., Pontius, Ramos, M.J., O'Brien, S.J. and Johnson, W.E.: Mitochondrial introgressions into the nuclear genome of the domestic cat. *J Hered* 98:414-420, 2007.
619. Springer, M.S., Murphy, W.J., Eizirik, E., Madsen, O., Scally, M., Douady, C.J., Teeling, E.C., Stanhope, M.J., de Jong, W.W., and O'Brien, S.J.: A molecular classification for the living orders of placental mammals of the phylogenetic placement of primates. In: *Primate Origins: Adaptations and Evolution*. (Ravosa, M.J. and Dagosto, M. Eds.), Springer, 2006.
620. Wilting, A., Buckley-Beason, V.A., Feldhaar, H., Gadau, J., O'Brien, S.J., and Linsenmair, K.D.: Clouded leopard phylogeny revisited: support for species recognition and population division between Borneo and Sumatra. *Front Zool* 4:15, 2007.
621. Troyer, J.L., VandeWoude, S., Slattery, J., McIntosh, C., Franklin, S., Antunes, A., Johnson, W., and O'Brien, S.J. FIV-cross-species transmission: an evolutionary prospective. *Vet Immunol Immunopathol* 123: 159-166, 2008.
622. Baena, A., Mootnick, A.R., Falvo, J.V. Tystskova, A.V., Ligeiro, F., Diop, O.M., Brieva, C., Gagneux, O'Brien, S.J., Ryder, A.O., and Goldfeld, A.E. Primate TNF promoters reveal makers of phylogeny and evolution of innate immunity. *PLoS ONE* 2:e621, 2007.
623. Martin, M.P., Pascal, V., Yeager, M., Phair, J., Kirk, G.D., Hoots, K., O'Brien, S.J., Anderson, S., and Carrington, M. A mustation in *KIR3DS1* that results in truncation and lack of cell surface expression. *Immunogenetics* 59: 823-829, 2007.
624. Menotti-Raymond, M.A., David, V.A., and O'Brien, S.J. STR based forensic analysis of felid samples from domestic and exotic cats. In: *Non-Human DNA Typing: Theory and Casework Applications*, Coyle, H. (Ed.), Marcel Dekker, Inc., New York, 2008.[In Press]
625. Wilting, A., Feldhaar, H., Buckley-Beason, V.A., Linsenmair, K.E., and O'Brien, S.J.: Two modern species of clouded leopards: a molecular perspective. *Cat News* 47: 10-11, 2007.
626. Cunningham, M.W., Brown, M.A., Shindle, D.B., Terrell, S.P., Hayes, K.A., Ferree, B.C., McBride, R.T., Blankenship, E.L., Jansen, D., Citino, S.B., Roelke, M.E., Kiltie, R.A., Troyer, J.L., O'Brien, S.J.: Epizootiology and management of feline leukemia virus in the Florida puma. *J Wildl Dis.* 2008 Jul;44(3):537-52.
627. Brown, M., Cunningham, M.W., Roca, A.L., Troyer, J.L., Johnson, W.E. and O'Brien, S.J.:

Genetic characterization of emerging feline leukemia virus in the free-ranging Florida panther population. *Emerg Infect Dis* 14: 252-259, 2008.

628. Roelke, M.E., Brown, M.A., Troyer, J.L., Winterbach, H., Winterbach, C., Hemson, G., Smith, D., Johnson, R.C., Pecon-Slattery, J., Roca, A.L., Alexander, K.A., Klein, L., Martelli, P., Krishnasamy, K., O'Brien, S.J.: Pathological manifestations of feline immunodeficiency virus (FIV) infection in wild African lions. *Virology*. 2009 Jul 20;390(1):1-12.
629. Pecon-Slattery, J., McCracken, C., Troyer, J., VandeWoude, S., Roelke, M., Sondgareth, K., Winterbach, C., Winterbach, H., and O'Brien, S.J.: Genome organization, sequence divergence, and recombination of feline immunodeficiency virus from lions in the wild. *BMC Genomics* 9:66, 2008.
630. Zeng, Z., Guan, L., An., P., Sun, S., O'Brien, S.J., and Winkler, C.A.: A population based study to investigate the host genetic factors associated with Hepatitis B infection and pathogenesis in the Chinese population. *BMC Infect Dis* 8:1, 2008.
631. Driscoll, C.A., Yamaguchi, N., Bar-Gal, G.K., Roca, A.L., Luo, S., Macdonald, D.W., O'Brien, S.J.: Mitochondrial phylogeography illuminates the origin of the extinct caspian tiger and its relationship to the amur tiger. *PLoS One*. 2009;4(1):e4125. Epub 2009 Jan 14.
632. Luo, S.J., Johnson, W.E., Martenson, J., Antunes, A., Uphyrkina, O., Martelli, P., Tarasov, V., Smith, J.L.D., O'Brien, S.J.: Subspecies genetic assignments of worldwide captive tigers increase conservation value of captive populations. *Curr Biol* 18:592-596, 2008.
633. Fisher, R.W., Ambrose, Z., Fritz, E.A., Hartmann, C.J., Hensley, L.E., Huggins, J.W., Jahrling, P.B., KewalRamani, V.N., Mucker, E.M., Paragas, J., Young, H.A., and O'Brien, S.J.: The CCR5 chemokine receptor is not required for monkeypox or variola entry into human monocytes. In prep
634. Hendrickson, S.L., Jacobson, L.P., Nelson, G., Phair, J.P., Johnson, R., Margolick, J.B., Detels, R., Rinaldo, C., and O'Brien, S.J.: Host Genetic Influences on Highly Active Antiretroviral Therapy Efficacy and AIDS-Free Survival. *J Acquir Immune Defic Syndr* 48:263-271, 2008.
635. Hendrickson, S.L., Hutcheson, H.B., Ruiz-Pesini, E., Poole, J.C., Lautenberger, J., Sezgin, E., Kingsley, L., Goedert, J.J., Vlahov, D., Donfield, S., Wallace, D.C., O'Brien, S.J.: Mitochondrial DNA haplogroups influence AIDS progression. *AIDS*. 2008 Nov 30;22(18):2429-39.
636. Eizirik, E., Johnson, W.E. and O'Brien, S.J.: Molecular systematics and revised classification of the family Felidae (Mammalia, Carnivora). *J Mammol* In Press.
637. Trigo, T.C., Freitas, T.R.O., Kunzler, G., Cardoso, L., Silva, J.C.R., Johnson, W.E., O'Brien, S.J., Bonatto, S.L., Eizirik, E.: Inter-species hybridization among Neotropical cats of the genus *Leopardus*, and evidence for an introgressive hybrid zone between *L. geoffroyi* and *L. tigrinus* in southern Brazil. *Mol Ecol*. 2008 Sep 10. [Epub ahead of print]
638. Yuhki, N., Mullikin, J., Beck, T., Stephens, R., and O'Brien, S.J.: Sequences, annotation and single nucleotide polymorphism of the major histocompatibility complex in the domestic cat. *PLoS One* 3:e2674, 2008.
639. da Fonseca, R., Johnson, W.E., O'Brien, S.J., Ramos, M.J., and Antunes, A.: The adaptive evolution of the mammalian mitochondrial genome. *BMC Genomics* 9:119, 2008.
640. Pontius, J.U., O'Brien, S.J.: Genome Annotation Resource Fields--GARFIELD: a genome

browser for *Felis catus*. J Hered. 2007;98(5):386-9. Epub 2007 Jul 23.

641. O'Brien, S.J., Johnson, W., Driscoll, C., Pontius, J., Pecon-Slattery, J., Menotti-Raymond, M.: State of Cat Genomics. Trends in Genetics 24: 268-279, 2008.
642. Coomber, N., David, V.A., O'Brien, S.J., Menotti-Raymond, M.: Validation of a short tandem repeat multiplex typing system for genetic individualization of domestic cat samples. Croat Med J. 2007 Aug;48(4):547-55.
643. Pecon-Slattery, J., Troyer, J.L., Johnson, W.E. O'Brien, S.J.: Evolution of feline immunodeficiency virus in Felidae: implications for human health and wildlife ecology. Vet Immunol Immunopathol 123:32-44, 2008.
644. Pontius, J.U., and O'Brien, S.J.: Use of online resources for the annotation of the *Felis catus* genome. IFRRS J Submitted.
645. Benson, JF, Hostetler, JA, Onorato, DP, Johnson, WE, Roelke, M, O'Brien, SJ, Jansen, D, Oli, MK,. Introgression and adult panther survival. The influence of genetic intorgression on the survival and cause-specific mortality of sub-adult and adult- Florida panthers. Submitted.
646. Murphy, W.J. and O'Brien, S.J.: Designing and optimizing comparative anchor primers for comparative gene mapping and phylogenetic inference. Nature Protocols 2: 3022-3030, 2007.
647. Krause, J., Unger, T., Noçon, Malaspinas, A-S., Stiller, M., Kolokotronis, S-O., Soibelzon, L., Spriggs, H., Dear, P.H., Briggs, A.W., Bray, S.C.E., O'Brien, S.J., Rabeder, G., Matheus, P., Cooper, A., Slatkin, M., Pääbo, S., Hofreiter, M.: Mitochondrial genomes reveal an explosive radiation of extinct and extant bears near the Miocene-Pliocene boundary. BMC Evol Biol 8:220, 2008.
648. Roelke, M.E., Johnson, W.E., Millán, Palomares, F., Revilla, E., Rodríguez, Calzada, Ferreras, P., León-Vizcaíno, L., Delibes, M., O'Brien, S.J.: Exposure to disease agents in the endangered Iberian lynx (*Lynx pardinus*). Euro J Wildl Res 54:171-178, 2008.
649. Eizirik, E., Johnson, W.E., and O'Brien, S.J.: In: Manejo e Conservação de Carnívoros Neotropicais. Definindo uniidades evolutivamente significativas e unidades de manejo para a conservação de carnívoros neotropicais. Morato, R.G., Rodrigues, F.H.G., Eizirik, E., Mangini, P.R., Cascelli de Azevedo, F.C., Marinho-Filho, J. (Eds.) pp. 47, 2007.
650. Johnson, W.E., Eizirik, E., Waits, L., and O'Brien, S.J. In: Manejo e Conservação de Carnívoros Neotropicais. Molecular ecology and carnivore conservation: The applications of molecular techniques for inferring identify kinship, and social structure in the neotropics. Morato, R.G., Rodrigues, F.H.G., Eizirik, E., Mangini, P.R., Cascelli de Azevedo, F.C., Marinho-Filho, J. (Eds.) pp. 67, 2007.
651. Werdelin, L., O'Brien, S.J., Johnson, W.E., Yamaguchi, N.: Phylogeny and evolution of cats (Felidae). Macdonald, D., and Loverage A. (eds.). In: Biology and Conservation of Wild Felids. Oxford University Press. 2009 In Press
652. Graphodatsky, A.S., Perelman, P., Sokolovskaya, N.V. Beklemisheva, V.R., Serdukova, N.A., O'Brien, S.J., Ferguson-Smith, M.A., Yang, F.: Phylo-genomics of the dog and fox family (Canidae, Carnivora) revealed by chromosome painting. Chromosome Res 16: 129-143, 2008.
653. Luo, S-J., Johnson, W.E., Smith, J.L.D., O'Brien, S.J.: What is a tiger? Genetics and Phyogeography. In: Tigers of the World. Ed. Tilson, R. In press

654. Münk, C., Beck, T., Zielonka, J., Hotz-Wagenblatt, A., Chareza, S., Battenberg, M., Thielebein, J., Cichutek, K., Bravo, I.G., O'Brien, S.J., Löchelt, M., Yuhki, N.: Functions, structure and read-through alternative splicing of feline APOBEC3 genes. *Genome Biol* 9:R48, 2008.
655. Culver, M., Hedrick, P.W., Murphy, K., O'Brien, S.J., Hornocker, M.G.: Estimation of the bottleneck size in Florida pathers. *Animal Conservation* In Press.
656. Shearer, W.T., Nelson, G.W., McIntosh, K., Thompson, B., Lu, M., Rich, K.C., LaRussa, P.S., Blattner, A., Brouwers, P., and O'Brien, S.J.: Association between genotypes and infant HIV disease progression: The women and infants transmission study. In prep
657. O'Brien, S.J.: The platypus genome unraveled. *Cell* 133:953-955, 2008.
658. Schmidt-Kuntzel, A., Nelson, G., David, V.A., Schaffer, A.A., Eizirik, E., Roelke, M.E., Kehler, J.S., Hannah, S.S., O'Brien, S.J., Menotti-Raymond, M.: A domestic cat X chromosome linkage map and the sex-linked orange locus: mapping of orange, multiple origins and epistasis over nonagouti. *Genetics*. 2009 Apr;181(4):1415-25.
659. Li, X., Glaser, D., Li, W., Johnson, W.E., O'Brien, S.J., Beauchamp, G.K., Brand, J.G.: Analyses of sweet receptor gene (Tas1r2) and preference for sweet stimuli in species of Carnivora. *J Hered*. 2009 Jul-Aug;100 Suppl 1:S90-100..
660. Driscoll, C.A., Clutton-Brock, J., Kitchener, A.C., O'Brien, S.J.: The Taming of the cat. Genetic and archaeological findings hint that wildcats became housecats earlier--and in a different place--than previously thought. *Sci Am*. 2009 Jun;300(6):68-75.
661. Menotti-Raymond, M., David, V.A., Schäffer, A.A., Tomlin, J.F., Eizirik, E., Phillip, C., Wells, D., Pontius, J.U., Hannah, S.S., O'Brien, S.J.: An autosomal genetic linkage map of the domestic cat, *Felis silvestris catus*. *Genomics*. 2009 Apr;93(4):305-13.
662. Guo, X., O'Brien, S.J., Zeng, Y., Nelson, G.W., and Winkler, C.A.: GSTM1 and GSTT1 gene deletions and the risk for nasopharyngeal carcinoma in Han Chinese. *Epidemiol Biomarkers Prev*. 17: 1760-1763, 2008.
663. Urban, T.J., Weintrob, A.C., Fellay, J., Colombo, S., Shianna, K.V., Gumbs, C., Rotger, M., Pelak, K., Dang, K.K., Detels, R., Martinson, J.J., O'Brien, S.J., Letvin, N.L., McMichael, A.J., Haynes, B.F., Carrington, M., Telenti, A., Michael, N.L., Goldstein, D.B.: CCL3L1 and HIV/AIDS susceptibility. *Nat Med*. 2009 Oct;15(10):1110-2.
664. Guo, X., Johnson, R.C., Deng, H., Liao, J., Guan, L., Nelson, G.W., Tang, M., Zheng, Y., de The, G., O'Brien, S.J., Winkler, C.A., Zeng, Y.: Evaluation of nonviral risk factors for nasopharyngeal carcinoma in a high-risk population of Southern China. *Int J Cancer*. 2009 Jun 15;124(12):2942-7.
665. Roca, A.L., Georgiadis, N., and O'Brien, S.J. Cyto-nuclear genomic dissociation and the African elephant species question. *Quat Int* 169-170: 4-16, 2007.
666. Hendrickson, S., Nelson, G.W. and O'Brien, S.J. The Explained Fraction as a Statistical "Yardstick" for Genetic Association Studies. In preparation.
667. Brown, M.A., Troyer, J.L., Pecon-Slattery, J., Roelke, M.E., O'Brien, S.J.: Genetics and pathogenesis of feline infectious peritonitis virus. *Emerg Infect Dis*. 2009 Sep;15(9):1445-52.

668. Sezgin, E., Lind, J.M., Shrestha, S., Hendrickson, S., Goedert, J.J., Donfield, S., Kirk, G.D., Phair, J.P., Troyer, J.L., O'Brien, S.J., Smith, M.W. 2009: Association of Y chromosome haplogroup I with HIV progression, and HAART outcome. *Hum Genet.* 125(3):281-94
669. Oleksyk, T.K., Smith, M.W., and O'Brien, S.J. Genome-wide scans for selection. 2010 *Philos Trans R Soc Lond B* 365(1537):185-205.
670. Oleksyk, T.K., Shrestha, S., Truelove, A.L., Goedert, J.J., Donfield, S.M., Phair, J., Mehta, S., O'Brien, S.J., Smith, M.W.: Extended IL10 haplotypes and their association with HIV progression to AIDS. *Genes Immun.* 2009 Jun;10(4):309-22.
671. Lewin, H.A., Larkin, D.M., Pontius, J., O'Brien, S.J.: Every genome sequence needs a good map. *Genome Res.* 2009 Nov;19(11):1925-8
672. Hendrickson, S.L., Kingsley, L.A., Ruiz-Pesini, E., Poole, J.C., Jacobson, L.P., Palella, F.J., Bream, J.H., Wallace, D.C., O'brien, S.J.: Mitochondrial DNA haplogroups influence lipoatrophy after highly active antiretroviral therapy. *J Acquir Immune Defic Syndr.* 2009 Jun 1;51(2):111-6.
673. Herbeck, JT, Gottlieb GS, Winkler, CA, Nelson, GW, An, P, Maust, BS, Wong, KG, Troyer, JL, Goedert, JJ, Kessing, BD, Detels, R, Wolinsky, SM, Martinson, J, Jacobson, LP, Margolick, JB, Kaslow, RA, O'Brien, SJ, Mullins, JI. Multi-Stage Genome-Wide Association Study Identifies a Locus at 1q41 Associated with Rate of HIV-1 Disease Progression to Clinical AIDS *JID* 2010. 201(4):618-26
674. LaRue, R.S., Andresdottir, V., Blanchard, Y., Conticello, S.G., Derse, D., Emerman, M., Greene, W.C., JÃ³nsson, S.R., Landau, N.R., Lochelt, M., Malik, H.S., Malim, M.H., Munk, C., O'Brien, S.J., Pathak, V.K., Strelbel, K., Wain-Hobson, S., Yu, X.F., Yuhki, N., Harris, R.S.: Guidelines for naming nonprimate APOBEC3 genes and proteins. *J Virol.* 2009 Jan;83(2):494-7
675. O'Brien, S.J.: Stewardship of Human Biospecimens, DNA, Genotype, and Clinical Data in the GWAS Era. *Annu Rev Genomics Hum Genet.* 10:9.1-9.17 .2009
676. Pontius, J.U., O'Brien, S.J.: Artifacts of the 1.9x feline genome assembly derived from the feline-specific satellite sequence. *J Hered.* 2009 Jul-Aug;100 Suppl 1:S14-8. Epub 2009 Jun 16.
677. Menotti-Raymond, M., David, V.A., Eizirik, E., Roelke, M.E., Ghaffari, H., O'Brien, S.J.: Mapping of the domestic cat "SILVER" coat color locus identifies a unique genomic location for silver in mammals. *J Hered.* 2009 Jul-Aug;100 Suppl 1:S8-13. Epub 2009 Apr 27.
678. Tang, M., Zeng, Y., Poisson, A., Marti, D. Guan, L., Zheng, Y., Liao, J., Deng, H., Guo, X., Sun, S., Nelson, G., De The, G., O'Brien, S.J., Winkler, C.A., Carrington, M., and Gao, X. Haplotype-dependent HLA Susceptibility to Nasopharyngeal Carcinoma in a Southern Chinese population. *Genes and Immunity.* In Press
679. Tang, M et al HLA and HBV In preparatiion
680. Driscoll, C.A., Macdonald, D.W., O'Brien, S.J.: From wild animals to domestic pets, an evolutionary view of domestication. *Proc Natl Acad Sci U S A.* 2009 Jun 16;106 Suppl 1:9971-8. Epub 2009 Jun 15.
681. Klein, G., Klein, E., Klotman, M., Klotman, P., kotler, M., Kurth, R., Lafeuillade, A., La Placa, M., Lewis, J., Lillo, F., Lisziewicz, J., Lomonico, A., Lopalco, L., Lori, F., Lusso, P., Macchi, B., Malim, M., Margolis, L., Markham, P.D., McClure, M., Miller, M., Mingari, M.C., Moretta, L., Noonan, D., O'Brien, S.J., Okamoto, T., Pal, R., Palese, P., Panet, A., Pantaleo, G., Pavalakis, G., Pistello, M., Plotkin, S., Poli, G., Pomerantz, R., Radaelli, A., Guroff, M.R. Roederer, M.,

- Sarngadharan, M.G., Schols, D., Secchiero, P., Shearer, G., Siccardi, A., Stevenson, M., Svoboda, J., Tartaglia, J., Torelli, G., Tornesello, M.L., Tschachler, E., Vaccarezza, M., Vallbracht, A., Van Lunzen, J., Varnier, O., Vicenzi, E., Von Melchner, H., Witz, I., Zagury, D., Zagury, J.F., Zauli, G., and Zipeto, D., Unsung Hero Robert C. Gallo. *Science* 3234:206, 2009
682. Luo, S.J., Johnson, W.E., Martelli, P., Zhang, Y.P., Smith, J.L.D., and O'Brien, S.J. Phylogeography and evolutionary history of the Asian leopard cat (*Prionailurus bengalensis*) inferred from multiple DNA genealogies. In preparation.
683. Luo, S.J., Johnson, W.E., Martelli, P., Smith, J.L.D., and O'Brien, S.J. Multiple genealogies reveal significant Indochinese-Sundaic faunal transition at the Isthmus of Kra: Evidence from six Asian felid species. *PLoS Genetics*, Submitted
684. Brown, M.A., Munkhtsog, B., Troyer, J.L., Ross, S., Sellers, R., Fine, A.E., Swanson, W.F., Roelke, M.E., O'Brien, S.J.: Feline immunodeficiency virus (FIV) in wild Pallas' cats. *Vet Immunol Immunopathol*. 2009 Oct 14; [Epub ahead of print]
685. Sezgin, E., Drosdak, A., Smith, M.W., and O'Brien, S.J. Insights into European paternal genetic structure from population genetic analyses of DDX3Y and CD24L4. Submitted
686. Narfstrom, K., David, V., Jarret, O., Beatty, J., Barrs, V., Wilkie, D., O'Brien, S.J., and Menotti-Raymond, M. Retinal degeneration in the Abyssinian cat (rdAc): correlation between genotype and phenotype and rdAc allele frequency in two continents. *Vet Ophthalmology*. In press
687. Menotti-Raymond, M., David, V.A., Pflueger, S., Roelke, M.E., Kehler, J., O'Brien, S.J., Narfstrom, K.: Widespread retinal degenerative disease mutation (rdAc) discovered among a large number of popular cat breeds. *Vet J*. 2009 Sep 9; [Epub ahead of print]
688. Mullikin, James, Jeffrey A. Brockman, Nancy F. Hansen, Alice Young, Pedro Cruz, NISC Comparative Sequencing Program, Carlos Driscoll, Victor David, Stephen J. O'Brien, Lei Shen, Heather Ebling, William F. Donahue, Wei Tao, David J. Saranga, Adrienne Brand, Marc J. Rubenfield, Samer W. K. Al-Murrani, Mary F. Locniskar, Douglas R. Smith, Mitchell S. Abrahamsen. Discovery of Three Million SNPs across 7 Breeds of Domestic Cat and One Wild Cat. *BMC Genomics* In Press
689. O'Brien, S. J. Impressions from NAS Darwin Celebration. *Science* <http://blogs.sciencemag.org/origins/> 2009
690. Eizrik, E, Murphy, WJ, Koepfli, KP, Johnson, WE, Dragoo, JW, Wayne, RK, O'Brien, SJ. Pattern and timing of diversification of the mammalian order Carnivora inferred from multiple nuclear gene sequences. *Mol. Phy. Evol.* In press.
691. Fellay, J, Dongliang Ge, Kevin V Shianna, Sara Colombo, Bruno Ledergerber, Elizabeth T Cirulli, Thomas J Urban1, Kunlin Zhang, Curtis E Gumbs, Jason P Smith, Antonella Castagna, Alessandro Cozzi-Lepri, Andrea De Luca, Philippa Easterbrook, jhh Huldrych F Günthard, Simon Mallal, Cristina Mussini, Judith Dalmau, Javier Martinez-Picado, José M Miro, Niels Obel, Steven M Wolinsky, Jeremy J Martinson, Roger Detels, Joseph B Margolick, Lisa P Jacobson, Patrick Descombes, Stylianos E Antonarakis, Jacques S Beckmann, Stephen J O'Brien, Norman L Letvin, Andrew J McMichael, Barton F Haynes, Mary Carrington, Sheng Feng, Amalio Telenti & David B. Goldstein for the NIAID Center for HIV/AIDS Vaccine Immunology (CHAVI). Common genetic variation and the control of HIV-1 in humans. *PLOS Genetics*. In press
692. Wright, E.K. Jacobson, L, Kirk, G, Donfield, S, Buchbinder, SP, Goedert, JJ, Winkler, CA,

O'Brien, SJ. CCL3L1 Gene-Copy Number Variation ( CNV) Do Not Influence HIV-1/ AIDS. In prep

693. Eizirik, E., David, V.A., Buckley-Beason, V., Roelke, M.E., Schaffer, A.A., Hannah, S.S., Narfstrom, K., O'Brien, S.J., Menotti-Raymond, M.: Defining and Mapping Mammalian Coat Pattern Genes: Multiple Genomic Regions Implicated in Domestic Cat Stripes and Spots. *Genetics*. 2009 Oct 26; [Epub ahead of print]
694. Hendrickson, SL, Van Natta, M, Lewis, RA, Wallace, DC, Jabs, D., O'Brien, SJ. Mitochondrial haplogroups are associated with risk of Neuroretinal Disorder in HIV-positive patients. *JAIDS*. In press
695. Menotti-Raymond, M., Deckman, KH, David, V., O'Brien, SJ, Narfström, K. Mutation discovered in a feline model of human congenital retinal blinding disease. Submitted to *Invetigative Ophthalmology and Visual Science* In Press
696. Hendrickson, SL, Lautenberger, J, Chinn, L, Phair, J, Goedert, JJ, Vlahov, D, Donfield, S. Buchbinder, SP, Troyer, J, O'Brien, SJ. Nuclear-encoded mitochondrial genes and AIDS progression. Submitted *Jour Virology*.
697. O'Brien, SJ. Comparative Genomics in Vertebrates: A role for Platypus. *Australian Journal of Zoology*, 2009, **57**, vii–ix
698. Sezgin, E, Hendrickson, SL, Jabs, DA, Van Natta, ML, Lewis, RA, Troyer, JL, O'Brien, SJ and LSOCA Research Group. Effect of host genetics on incidence of HIV neuroretinal disorder in patients with AIDS. Submitted.
699. Troyer, JL, Lautenberger, J, Nelson, GW, Pontius, J, Kessing, B, McIntosh, C, An, P, Johnson, RC, Chinn, L, Sezgin, E, Li, G, Hendrickson, SL, Donfield, S, Goedert, JJ, Phair, J, Buchbinder, S, Vlahov, D, Limou, S, Delaneau, O, Zagury, JF, Smith, M, Winkler, CA, O'Brien, SJ. PARD3B AIDS restriction discovered by genome-wide association study. Submitted. NEJM
700. Genome 10K Community of Scientists. Genome 10K: a proposal to obtain whole-genome sequence for 10,000 vertebrate species. *J Hered*. 2009 Nov-Dec;100(6):659-74. Epub 2009 Nov 5.
701. Johnson, R, Nelson, GW, Troyer, JL, Lautenberger, JA, Kessing, BD, Winkler, CA, O'Brien, SJ. Bonferroni adjustments for multiple comparisons in a genome-wide association study. Submitted *BMC Genomics*
702. Chinn, L, Tang, T. HDFs High-density SNP association study of host genes required for HIV-1 infection. *Emerging Inf Disease* Submitted.
703. Nelson, GW. et al Decorrelating association statistics for complex phenotypes: The PCPD method In preparation
704. Sezgin, E, Jabs, DA, Hendrickson, SL, van Natta, M, Zdanov, A, Lewis, RA, Smith, MW, Troyer, JL, O'Brien, SJ, and the LSOCA Research Group. Effect of host genetics on CMV retinitis occurrence in patients with AIDS. Submitted.